

Spring 2008

WPI Transformations : A Journal of People and Change, Spring 2008

Worcester Polytechnic Institute

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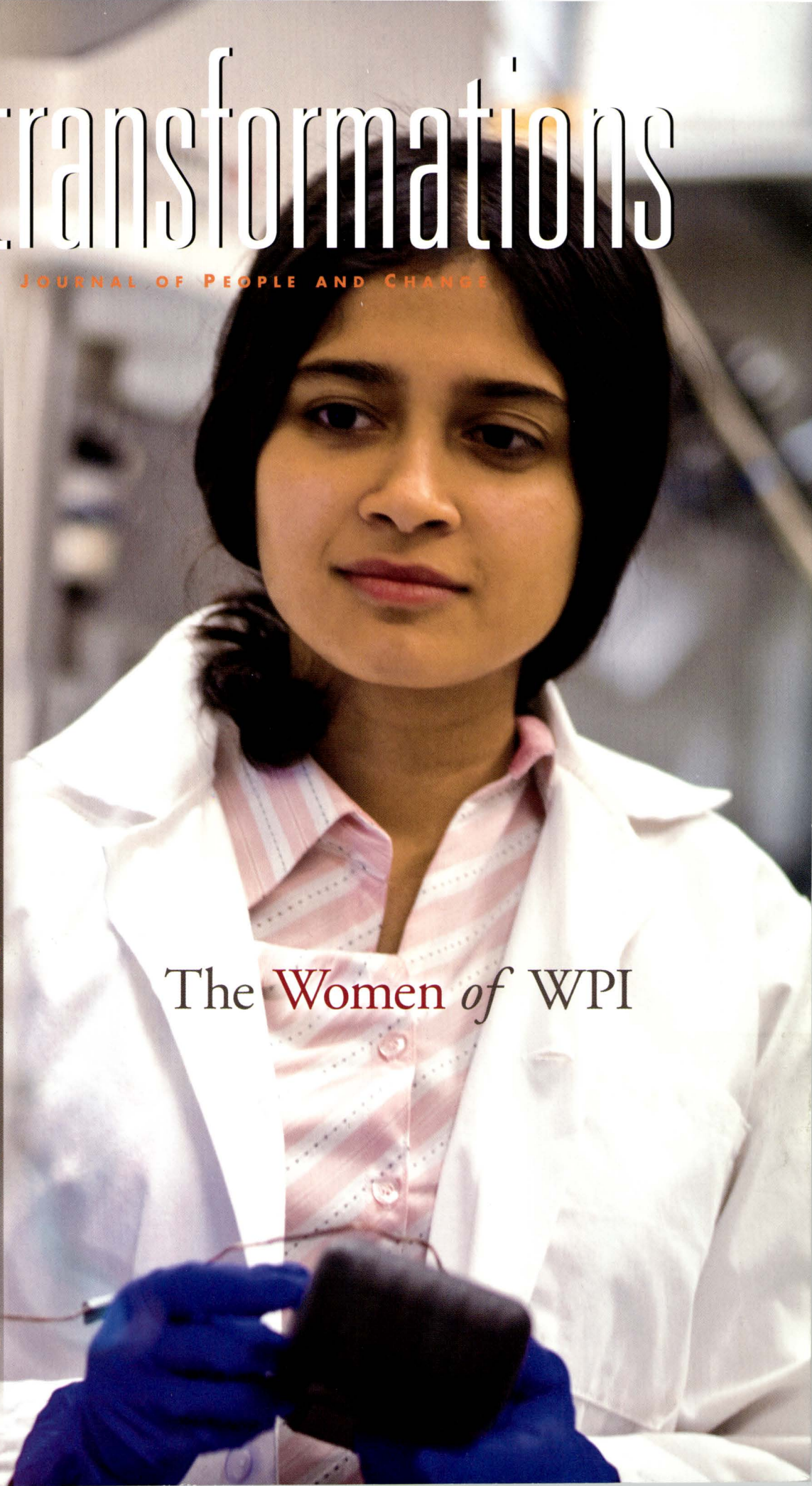
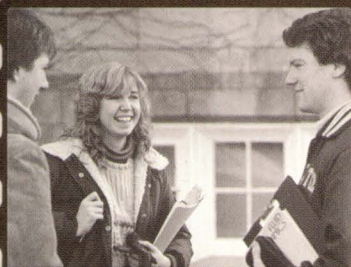
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WPI transformations

SPRING 2008

A JOURNAL OF PEOPLE AND CHANGE



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About the cover

Shruti Pai '04 works in a biomechanics lab at the University of Washington. Photo by Mel Curtis. Archival images courtesy of WPI Library Archives. Cover concept by Pamela Mecca.

This page: Lesley (Small) Zorabedian and Jayne Rosetti were the first female undergraduates to enroll at WPI in 1968 when the Institute became coeducational.



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Starting Point

"Life is not easy for any of us. But what of that? We must have perseverance and above all confidence in ourselves."

—Marie Curie

Thirty years before WPI went coed, a young woman in New York City aspired to be a doctor. She was interested in helping others, and, more important, she excelled in math and science. But there was just one problem.

"Nice Jewish girls don't become doctors," her father, a Polish immigrant, decreed.

Though she was accepted to medical school, the young woman wouldn't disobey her father. Thus, she enrolled in a nursing program and enjoyed a long, successful career as an RN, later earning a master's degree in chemistry.

My family always said that this woman—my grandmother, my Bubbe—was ahead of her time. In high school, when women's sports were far less common than they are today, Bubbe not only played sports, but she earned a sweater. Women rarely "sweatered" in the 1930s since, at least in her high school, girls were required to letter in three sports to earn the sweater. (Incidentally, boys needed only one sport.)

My generation has been lucky in that, on the whole, we haven't encountered the kind of gender discrimination our mothers and grandmothers faced. As Terese Kwiatkowski '83 explains (see story, page 25), "I'm sure it was easier for me to overcome gender issues because of the women who preceded me, and that it's easier for those who've joined the profession after me."

Just as I look to my grandmother as a source of inspiration, I imagine that she, too, would be inspired by the very women who comprise this issue of *Transformations*, which celebrates 40 years of coeducation at our university.

In honor of this anniversary, we've included just a sampling of stories of the inspiring and impressive work of our alumnae. We talk with Lesley (Small) Zorabedian '72, one of the first women to step foot on campus as an undergraduate student, and others about the early years of coeducation here.

We tell the stories of alumnae in various stages of their careers—Kwiatkowski, Judy Nitsch '75, and Anni Autio '82 discuss their successful careers in civil engineering, a field still dominated by men. Lisette Manrique '03 (MS'05) and Shruti Pai '04 (MS'05) are poised to make a difference in the biomedical engineering field. And we talk with women students and faculty about the important research and activities happening on campus today.

True, the alumnae in this issue of the magazine are singled out because they're women. But—and this cannot be understated—we acknowledge and celebrate their successes and accomplishments regardless of their gender.

I like to imagine that, if my Bubbe could have met them, she would have been blown away by the impressive careers these alumnae have had, or are just beginning. I picture her listening intently to their stories, and conveying the simple words of wisdom that she often had for my sister and me: "Enjoy," she would say, no matter the occasion. "Just enjoy."

With that, I hope you, too, enjoy.

Thanks for reading.

Charna Westervelt, *Editor*

VOLUME 105, NUMBER 3, SPRING 2008

WPItransformations
A JOURNAL OF PEOPLE AND CHANGE

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Gem of a Read

Just a quick note to tell you that I loved the current edition of our school publication. It came yesterday. I properly disposed of the other mail and then picked up *Transformations*. Two hours later, I finished reading it from cover to cover—just a real gem. It's so full of good, interesting school news.

I can't wait for the next issue.

Edwin Campbell '43
Falmouth, Maine

Moved to Reconnect

Last summer's *Transformations* contained approximately 150 obituaries—more than six pages' worth—and for the first time I read them all very carefully. I found the synopsis of many distinguished careers inspiring and couldn't help wondering the degree to which their WPI education had made these careers possible.

It was shocking to me to read of the death of so many of my classmates. It's unfortunate we didn't have a chance to communicate with those we knew quite well before they passed away, which, in my case, included many Phi Kappa Theta fraternity brothers with whom I lived for three years.

It would be a kick to hear from my classmates. Care to give it a shot? I'll watch the mail! [See page 36 for full note.]

Don Lewis '51
Bethel, Conn.

Alum-what?

We offer this refresher course on the use of words denoting graduates...

alumna *n. sing.* [uh-luhm-nah] A female graduate of a particular school, college, or university

alumnae *n. pl.* [—nee] More than one female graduate

alumnus *n. sing.* [—nus] A male graduate OR generic (either male or female)

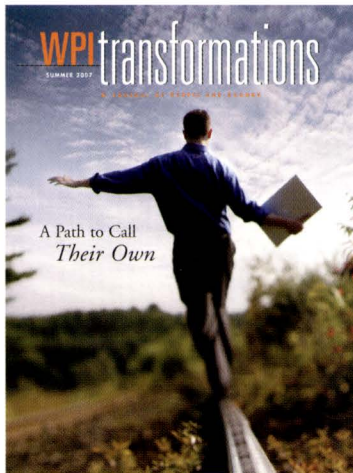
alumni *n. pl.* [—ni] More than one male graduate OR generic

Alumnus and alumna come from Latin and preserve Latin plurals. WPI usually uses alumni for mixed plural (men and women).

Entrepreneurial Interests

Congratulations to *Transformations*. I enjoyed your summer issue, in part due to my interest in entrepreneurship. Continued good wishes to the magazine.

Don Berth '57
Holden, Mass.

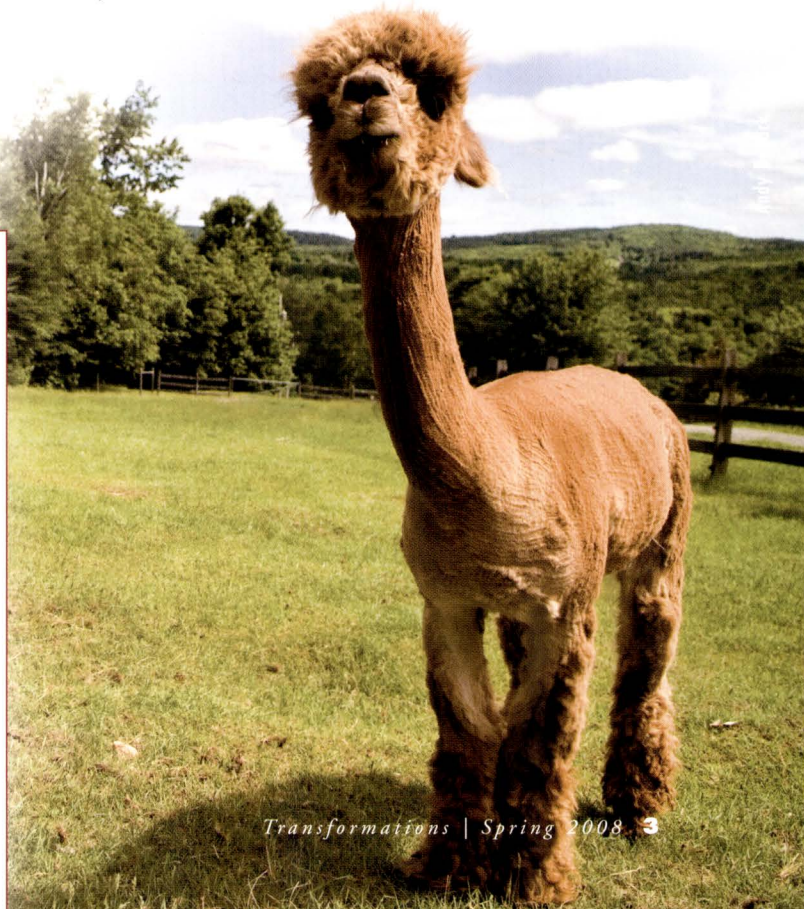


Donald F. Berth established the WPI Entrepreneurs Collaborative (now the Collaborative for Entrepreneurship and Innovation) following his decade tenure as vice president for university relations. —Ed.

Furry Friends

Editor's note: *Transformations* received an outpouring of letters, emails, and other feedback after we ran the article "Breeding Business on Fertile Ground," which featured the story of Jennifer Lutz '94, an alpaca breeder in Vermont.

We were both surprised and delighted to learn that Ms. Lutz is not the only alpaca-breeding WPI alum. Mike Busky '78 and his wife, Laura, own North Brook Farm Alpacas in Berlin, Mass.



A message from President Berkey

Expanding the WPI Portrait

Chronicling the first 100 years of WPI's history, the marvelous book *Two Towers* concludes with a portrait of the then-current students of 1965. "These were the men," author Mildred McClary Tymeson writes, "who would be doing the world's work for the rest of the twentieth century." How quickly times change! Just three years later the arrival of women undergraduates would forever alter that portrait, and today it is the men and women of this university who are not only doing the world's work, but helping to lead much of the world's progress in the twenty-first century.

When I consider the early years of coeducation on our campus, I cannot help but wonder about the brave young women who stepped out of their parents' cars and into WPI history. Before ever venturing into a WPI classroom, these students exhibited the pioneering spirit and independence of thought that have characterized this university since its inception. Today's women undergraduates still do. Deeply individual, they remain united to their predecessors through their thirst for knowledge, love of problem solving, and genuine desire to make a better world.

As the stories in this issue of *Transformations* illustrate so beautifully, women have enjoyed tremendous success at WPI—and beyond our university's borders. Whether heading corporations, contributing breakthrough advances for the treatment of human diseases, or being recognized as one of the "New Faces of Engineering," WPI's alumnae are making their mark as innovators and leaders across the country and around the world. Of course, this comes as no surprise to a university that was founded on the principle of providing talented people the opportunity to put their knowledge to work in creative and productive ways.

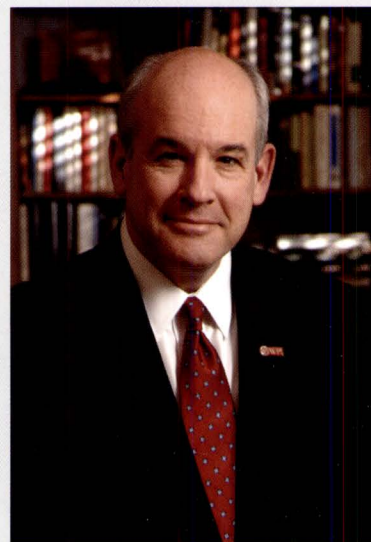
Since those early days, WPI has come a long way in achieving its aims for a fully integrated and supportive campus—and yet there is still much more we can do. I am delighted that several of the goals set forth in our newly revised Strategic Plan pertain to the experience and achievement of women at WPI. Chief among these is a significant increase in female enrollment, which currently stands at 26 percent of the undergraduate community. We are

also striving to make WPI a leader in career opportunities for women faculty and staff through stronger outreach and mentoring programs, a review of the tenure and promotion processes to ensure equitable treatment, and the recruitment and retention of significantly higher numbers of outstanding female faculty and staff.

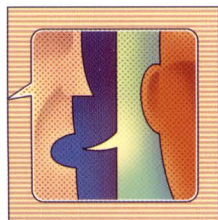
That WPI achieve these goals is vital both for the future of the university and for the leadership

we can provide to others. In a world in which millions of women are still denied basic human rights, institutions like WPI, which are exemplars of high achievement, must celebrate the accomplishments of strong women students, faculty, and staff, as well as alumnae. As a university, we must foster a welcoming environment and encourage more young women to pursue careers in science and engineering. And as the United States faces mounting science and engineering competition from other nations, we must identify and make full use of *all* of our talent.

On this historic anniversary, we honor the pioneering individuals who helped WPI chart a new course of coeducation, and we recognize the vast changes that have occurred at WPI since so many gifted women have become full participants in every aspect of the life of the university. When the history of WPI's next 100 years is written someday, I have no doubt that the inclusion of so many talented women in the WPI community will unquestionably take its place among the most important advances in our university's continuing evolution.

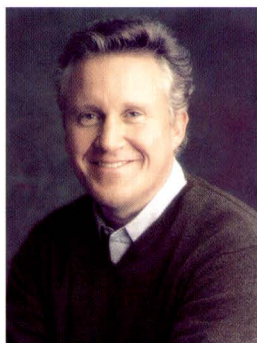


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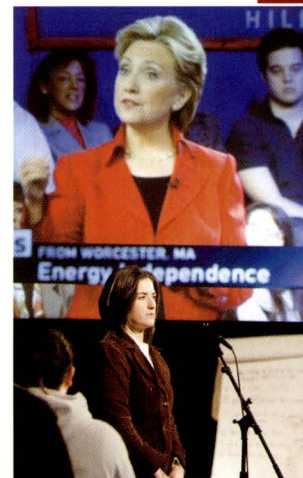
GE's Immelt Named Commencement Speaker

Jeffrey R. Immelt, chairman and CEO of General Electric Company, will deliver the address at WPI's 140th Commencement exercises May 17. Immelt was appointed the ninth chairman of GE in September 2001; since then, he has led the legendary 130-year-old company to consistent economic growth around the world, with an average of 10 percent annual financial growth over the past five years.



Clinton's Voice Heard at WPI

Senator Hillary Clinton chose WPI's Alden Memorial as one of 20 national satellite simulcast locations for her "Voices Across America: A National Town Hall." The first hour of the 90-minute event was broadcast on the Hallmark Channel, and those attending had the opportunity to ask questions to the presidential hopeful live via satellite. Senator Clinton anchored the Town Hall from New York City; Massachusetts Congressman Jim McGovern served as the local host.



Students Honored for Making a Difference

WPI seniors Jason Frey, Ryan Kendrick, Jodi Lowell, and John Rothermel traveled to Windhoek, Namibia, where they helped residents of nearly 4,000 unelectrified settlements develop renewable energy businesses. For their Interactive Qualifying Project, which won first place in the President's IQP Awards

competition, they interviewed dozens of local families about their energy use, resulting in a toolkit for local entrepreneurs to assess possibilities for introducing renewable energy businesses to the area. Such businesses would generate income and bring accessible energy services to communities without electricity.

Advised by Robert Krueger and Fred Looft, this IQP was one of five presented to a panel of judges at the annual contest held in January. Other award winners:

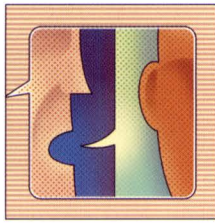
Second Place: "Noise Data Farming for the City of Boston," Shannon O'Toole, Brandon Finzel, Justin Perron, Jacob Russell (advisors: Chrysanthe Demetry, Kevin Clements)

Second Place: "HIV/AIDS Prevention Education: A Look at the HIV/AIDS Awareness Activities at the Polytechnic of Namibia," Danielle Dionne, Amanda Tichy, Jessica Sullivan-Keizer, Derrick DiConti (advisors: Robert Krueger, Fred Looft)

Third Place: "Demand Response Programs in the Greater Boston Area," Michael Irace, James Chrysanthacopoulos, Chukwunonso Agunwamba, Eyuel Abebe, Muztaba Tawkeer Islam (advisors: James Doyle, Alex Emanuel)

Third Place: "Developing a Strategy to Improve Solar Home System Sustainability in Rural Thailand," Gabriel Baldwin, Benjamin Childs, Carolyn Hunter, Victoria Urrea (advisors: Bland Addison, Seth Tuler)





More**Buzz**

Schilling Plays Ball with WPI

Red Sox pitcher Curt Schilling paid a surprise visit in February to participants in GameJam, WPI's 38-hour design marathon for aspiring video game developers. The major league pitcher dropped in with his son, Gehrig, to find students working on games for the first Massachusetts Game Challenge, sponsored by Schilling's video game development company, 38 Studios, in Maynard, Mass.

During his 90-minute visit in Atwater Kent Labs, Schilling chatted with students and got a sneak peak at their games in progress. He also compared notes with them on favorite video games and game platforms, and talked about 38 Studios' approach to game development. Many of the WPI students who took part in GameJam are enrolled in WPI's pioneering, first-in-the-nation Interactive Media and Game Development major.



Students Solve "Great Problems"

It's not every day that WPI visitors can learn from students about air pollution in China, fish stock depletion in Tanzania, and the feasibility of various photovoltaics systems. Or, maybe it is.

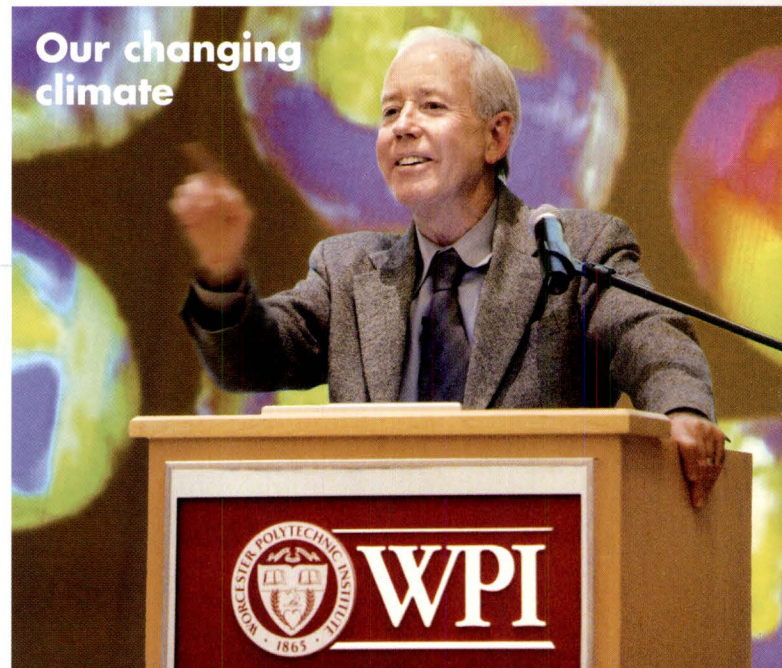
When Eric Hahn '80 came to campus last fall, he chatted with some first-year students about these very topics. The computer scientist and entrepreneur whose work has helped shape the Internet returned to his alma mater to visit with the 88 first year students who had completed the university's new Great Problems Seminars, a pilot program he helped start to give first year students real-world experience through hands-on project work. In two seminars—Feed the World and Power the World—students addressed global problems focused on food, health, and energy resources.

In speaking with the students about their projects, Hahn was immediately impressed by their fresh ideas and thinking. Though not all of their proposed solutions were immediately implementable, he observed, "it was exciting to see their different perspectives."

No. 1

MBA Program Tops National Rankings

BusinessWeek ranked **WPI No. 1** in the Northeast and No. 9 in the nation for its part-time Master of Business Administration program. Nationally, it ranked No. 5 in student satisfaction and No. 4 in academic quality. The Department of Management and Office of the President hosted a special event in April to celebrate the ongoing success of the MBA program.



Ronald Prinn, internationally recognized expert on global climate change, speaks at WPI's third annual University Lecture in December. Prinn is professor of atmospheric research at MIT.



Grand Opening for Gateway Park

WPI officially opened its new Life Sciences and Bioengineering Center at Gateway Park in September, with a ribbon-cutting ceremony held at the new world-class facility. In October, RXi Pharmaceuticals (founded by Nobel Laureate Craig Mello) signed a lease to locate in the new building, with the option to become the lead tenant of a future 100,000-square-foot building planned for construction at Gateway Park.

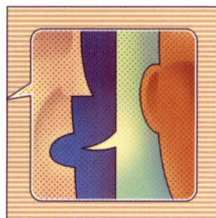
Gateway Park recently was given its own street, Washburn Way, named for Ichabod Washburn, legendary entrepreneur and a WPI founder. WPI's building has received several honors from the federal government, including the prestigious national Phoenix Award, and the Excellence in Economic Development Award for Urban or Suburban Development from the U.S. Department of Commerce.



\$6 Million from Alden Trust

WPI has received a \$6 million grant from the George I. Alden Trust for the renovation and integration of several undergraduate laboratories in Goddard Hall into the new Undergraduate Life Sciences Laboratory Center at WPI. The gift, the largest in the Alden Trust's 95-year history, is the second given to WPI by the Trust in recent years for the purpose of improving undergraduate academic facilities. In total, the Alden Trust has contributed \$11 million toward WPI's mission of improving life sciences education at the undergraduate level.

When completed, the center will become the university's main facility for undergraduate teaching and research in biology and biotechnology, biomedical engineering, chemistry and biochemistry, and chemical engineering. It will promote cooperation and collaboration across the disciplines, and support increased enrollments in engineering and science programs. Work on the renovation will begin in July; its opening is slated for C-Term 2009.



More**Buzz**



WPI Mourns Loss of Emeriti Professors



Roger R. Borden '61, Mechanical Engineering, died Oct. 29, 2007, at his home in Worcester. Borden held a BS in mechanical engineering and a BS in general engineering from MIT, as well as an MS in mechanical engineering from WPI. He was an expert on reducing automotive emissions and advised WPI students on their designs for a national Clean Air Car Race. A retired pastor of the United Methodist Church, he studied at Assumption College and Andover-

Newton Theological School. Borden's wife, Constance Elin (Linberg), died in April 2007. He is survived by his son, the Rev. Andrew H. Borden, his daughter, Meredith Ann Borden, and three granddaughters.

Kenneth E. Scott '48,

Mechanical Engineering, founder of the Instructional Media Center at WPI, died Jan. 3, 2008, at his home in Ft. Myers, Fla. An advocate of the potential for new technologies to improve learning, he created and directed the Instructional Media Center (now the Academic Technology Center) and the Computer-aided Design Laboratory. An active member of the WPI Alumni Association, he served as its first faculty representative and remained a loyal supporter. His honors include the 1998 William R. Grogan Award for Support of the Mission of WPI, the WPI Board of Trustees' Award for Outstanding Teaching, and the inaugural endowed George I. Alden Professorship in Engineering. The 1970 WPI yearbook, *The Peddler*, was dedicated to him. Scott is survived by his wife, Elizabeth (Oldham), and three children.

See page 47 for the obituary of Laddie Berka, professor emeritus of chemistry and biochemistry. Complete obituaries may be read at www.wpi.edu/News/Memorial.

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WPI



Wireless Research Earns CAREER Award

Simple wireless networks—from the Wi-Fi hotspot at your local Starbucks to the cellular network that carries your phone calls—have become commonplace over the past decade. But there are more complex varieties of wireless networks that are only just beginning to find real-world uses.

Sensor networks, for example, consist of hundreds or even thousands of small wireless nodes (some as tiny as specks of dust) that can sense the environment—monitoring temperatures, listening for sounds, detecting vibrations. First used by the military to locate enemy submarines or track troop movements, sensor networks are being considered for applications as

diverse as sniffing for radiation leaks at nuclear power plants, guarding paintings in museums, and monitoring traffic flow on highways.

Finding the most efficient and reliable ways to move data through these weblike networks is one focus of the research of Wenjing Lou, assistant professor of electrical and computer engineering at WPI. Her early success in this field recently won Lou a five-year, \$450,000 National Science Foundation CAREER Award—the agency's most prestigious award for young faculty members.

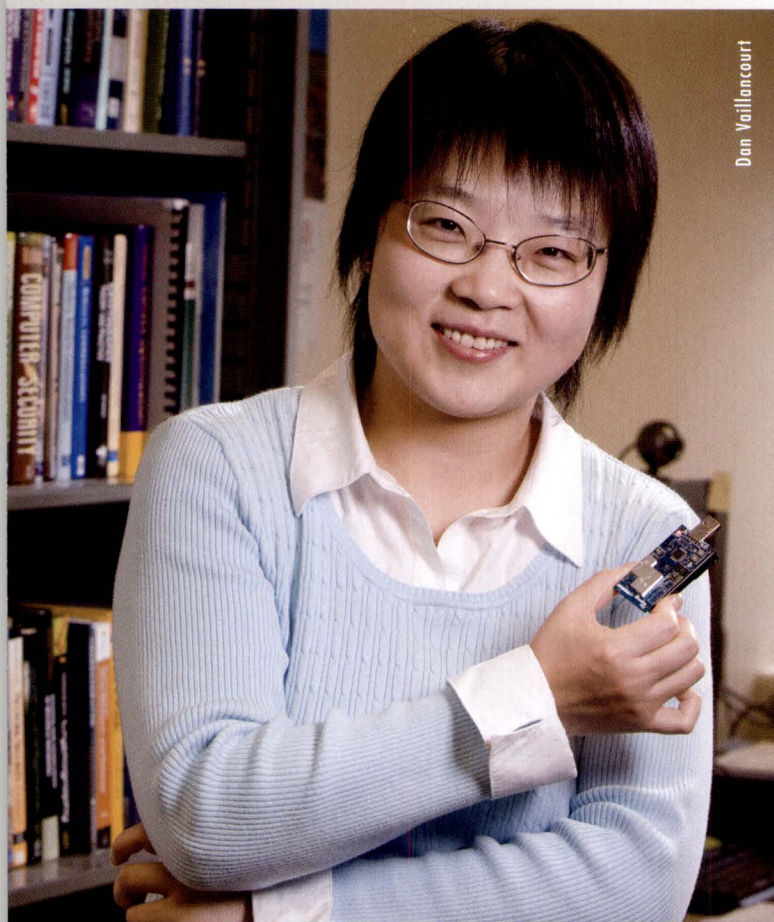
Sensor networks differ from home or office networks, in which signals from a laptop jump to a nearby access point in a single hop (the signals travel the rest of the way over wires). In a sensor network, most of the nodes may be far beyond the reach of an access point. Their signals must hop wirelessly from node to node to reach their ultimate destination. Researchers call these multihop networks.

With her CAREER Award, Lou is conducting a comprehensive study of a novel way of managing traffic in multihop networks. Typically, a node that needs to send a packet of information down the line looks at its neighboring nodes and sends the packet to a single node that appears to have the best chance of passing the signal along to the next node in the chain. The strategy is risky, since momentary signal interruptions may keep the packet from getting through.

Lou is looking into another strategy called opportunistic routing, in which the node sends the packet simultaneously to several neighbors. After receiving the packet, each node, in turn, assesses the state of the network and figures its chances of getting the packet through to its neighbors. The node with the highest probability of success gets the nod.

The basic idea is simple. Putting it into practice has proven difficult, however, and little is known about how to design networks to take full advantage of the technique. Lou will, for the first time, produce a framework that shows the optimum way for nodes to share information, to determine the best path for a data packet, and so on. From this framework will grow models and protocols that will help network designers use opportunistic routing effectively.

“Ideally, we want to be able to make predictions about the end-to-end performance of a network using opportunistic routing,” Lou says. “With this knowledge, we can help create more reliable networks, where information gets through more quickly, with fewer retransmissions.”



Don Vaillancourt

Wenjing Lou holds an example of a sensor node, available commercially, consisting of a low-power, high-performance microcontroller, an integrated onboard wireless transceiver, and integrated humidity and temperature sensors. Lou's research focuses on providing more reliable and efficient communication methods among those nodes when they are deployed on a large scale.



The **Big** Picture

By Lorraine U. Martinelle

Balancing Act

Katarzyna (Kasia) Koscielska '08 has big dreams. But she's no daydreamer.

"I hope to contribute something to society," she says, "by working for an international nonprofit organization through the study of genetics of diseases, cancer, HIV, or other illnesses that plague people."

At 21 years old, Koscielska has already figured out how to balance her life goals with being a mom, a community-recognized volunteer, and a WPI student double majoring in biology/biotechnology and biochemistry.

So, what's her secret? "I don't have one," she admits. "I just do what needs to be done, as well as I possibly can. That's all."

The Women's Initiative of the YWCA in Worcester recognized that willing spirit last fall with its Meredith D. Wesby Young Leader Award. On campus, she has been involved in myriad activities. She's a peer educator for sexual assault prevention. She's a student ambassador. And as academic coordinator for WPI's Camp Reach summer program last year, she's a role model for middle-school girls interested in math and science.

Kasia Koscielska arrived at WPI in 2004 straight from Poznan, Poland—with her toddler-aged daughter, Maja, in tow. Her life partner (and Maja's father), Artur Janc '07, is now pursuing a master's in computer science at WPI.

But getting to WPI wasn't the easiest road. Koscielska, who speaks fluent English, took her high school final exams when she was eight months pregnant, and her Polish university entrance exam only a week after giving birth. While caring for her newborn, she took the SATs and was awarded the WPI Presidential Scholarship.

Her next step? Getting accepted into a PhD program in the biological sciences.

"My daughter and my partner are what keep me going and striving to be my best," she says. "I think I have succeeded, thanks to the combination of values that I was brought up with and my own curiosity and diligence."



Tony Rinaldo



Explorations

By Eileen McCluskey



Laundry for All

In **Monwabisi Park**, a densely packed settlement of 15,000 people on the outskirts of Cape Town, South Africa, women haul five-gallon containers of water from public spigots to the one-room shacks they call home. Outside their small dwellings, the women talk together as they wash the laundry for their families. They make the exhausting trudge to the public water pipes two or three times for each load of laundry, tossing the used water onto the arid soil of the streets because there is nowhere else to dispose of it. The water forms puddles where insects breed.

These poor living conditions—legacies of the apartheid era—are typical in South Africa. In Monwabisi Park, as in many settlements outside Cape Town, five people often share a single tiny shack. Few families enjoy indoor plumbing.

WPI students Lauren Alex '09, Jessie Cusack '09, Augustina Mills '09, and Alejandro Sosa-Boyd '08 arrived in Monwabisi Park last December to complete an IQP that they hoped would ease life for the people of this close-knit community.

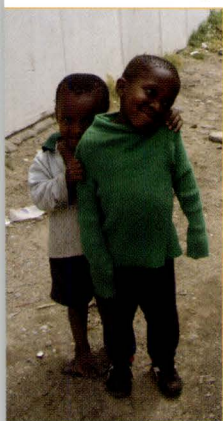
"Through discussions with our sponsor, Dianne Womersley of the Shaster Foundation, and by talking with community residents, we quickly confirmed that a communal laundry facility would serve people's needs well," says Scott Jiusto, director of WPI's Cape Town Project Center and assistant professor in the Interdisciplinary and Global Studies Division. The project also met the Shaster

Foundation's and the IQP project's sustainable development requirements, Jiusto says.

The result, a fully functional and sustainable laundry facility, has been wildly successful. "There has been great celebration from all the women in the vicinity over the new laundry," Womersley says. "It is seen as a great labor-saving installation."

The new laundry facility is just the latest addition to a collection of bustling community buildings called the Indlovu Centre, which was created in 2006. From the beginning, the Monwabisi community worked cooperatively with Womersley to raise funds and participate in building the Indlovu Centre. Today, the Centre's crèche (daycare center), community clinic, soup kitchen, guest house, and community garden offer the basic services most needed in Monwabisi. The Centre also runs programs that offer productive activities for local children, teach unemployed mothers marketable crafts, improve literacy and professional skills, and promote good personal and environmental health practices.

As it grows, the Indlovu Centre holds to principles of resource conservation and waste management. An earthworm toilet converts waste to fertilizer for the community garden, while biogas digesters collect methane from natural decomposition. Solar ovens made with cardboard boxes and aluminum foil are used in place of gas stoves, and a 5,000-liter tank collects rainwater from the roof of the crèche for use during the dry season.





"The first time we got water running through the pipes and into the sinks, all the kids came running to see what was going on. The women came, too. We were all excited."

—Lauren Alex '09

Eco-laundry

The WPI team worked with Monwabisi's Xhosa people to design and build the laundry facility. Using rainwater harvested from the roof of the Indlovu youth center, and a greywater irrigation system that waters the small fruit grove across the street, the facility is designed to operate largely without municipal water and to emit no waste.

Water for the laundry facility comes from two 1,500-liter storage tanks, which stand on a raised platform behind the youth center. Beneath these tanks are two identical containers to catch overflow during winter months when, the WPI students estimate, rainfall will exceed the laundromat's water needs.

PVC tubing, painted black to make best use of solar heating, carries the stored water along the side of the youth center to the laundry station in front. Four stainless steel wash basins—two sets of two, facing one another—with individual taps and inclined ribbed edge are used for washing. Over the tubs, a roof of translucent corrugated plastic provides shade. As the greywater drains from the tubs, it is carried by tubing that runs under the adjoining street, and waters three banana and three pear trees through slow-drip irrigation.

Throughout the IQP's painstaking design and construction phases, local liaisons worked alongside the WPI team. In addition to Womersley, these collaborators included Michael Tremeer, owner of the Eco-Beam construction company, Patrick Carrigan, an Indlovu Centre volunteer, community leader Buyiswa Tonono and her husband, Opah Tonono, and his team of laborers.

Children and teens who frequent the Indlovu youth center also pitched in daily during construction. "About five teenagers helped us almost every day," says Alex. "Little kids, too, handed us tools and did whatever they could to contribute to the effort. It was great to hang out with them."

While only the women of the local Xhosa community do laundry, no such gender roles separated the WPI students. Alex and Mills worked alongside Cusack and Sosa-Boyd to dig trenches for pipes, realign roof gutters for rainwater collection, and build platforms for the water tanks. As Cusack notes, "It wasn't two guys and two girls. It was four students trying to do a job."

Local miracles

"The first time we got water running through the pipes and into the sinks," Alex says, "all the kids came running to see what was going on. The women came, too. We were all excited."

As part of their final presentation, the students conducted a walk-through of the laundry station. Xhosa women volunteered to wash clothes, demonstrating the importance of using biodegradable soap and turning off the taps to conserve water. "Everyone seemed impressed and happy with the results," says Cusack. "And the kids thought it was the coolest thing ever."

Cool cash, too, will likely result from the new laundry facility. "The women love the idea of making money by doing laundry for Indlovu Centre guests for a small fee," notes Jiuisto.

Even more, the laundry facilities will be replicated around Monwabisi Park. "The students' plan will serve as a blueprint for all the other areas where we intend to build more community centers—each one with a 'WPI laundry system' attached," Womersley says. "The WPI students made a significant impact and an invaluable contribution to a poverty-stricken community."



Destined for drama from an early age, Susan Vick's career might have remained a dream if not for the encouragement of women mentors. "I come from a long tradition of women supporting me," she says.

Vick, who has overseen WPI's drama and theatre programs since 1981, produced her first play at age 5 at her home in the Blue Ridge Mountains of North Carolina. "I was hell-bent for it," she says. "But the idea of doing theatre for a living was very remote."

Her parents hoped she might follow a traditional career path, but a few teachers saw the potential for something more. At Catawba College, for example, where she was a history major, her European history instructor told her, "You love history, Susan, but your passion is theatre. You're just going to have to do something about that."

What she did was enroll at Southern Methodist University, where, in 1969, she became the first woman to earn an MFA in directing. Through posts in academia, including Bowdoin College, where she was acting director of theatre, she developed a zeal for teaching. Returning to school, she earned a PhD in theatre at the University of Illinois—again, she was the first woman to do so.

As the 1980s dawned, Vick's theatre resume was growing at an impressive pace. There were awards for acting, more than 20 directing milestones, and a budding career as a playwright—including a script accepted for production by the Ensemble Studio Theatre in New York. "Still," she says, "I needed to have a little more bread on my table."

When a position opened at WPI, she applied. The fact that the job required directing two productions a year was a plus. "It's very difficult to get those jobs where you also direct," she says. She recalls thinking the job might provide a short bridge to the next phase of her theatre career.

But she stayed, in part, because of friendships with other women faculty members (including JoAnn Manfra, who, as head of the Humanities and Arts Department, became an important mentor and supporter), and the opportunity to work with WPI students. Her resume continued to grow: founding *New Voices*, the longest running university new plays festival in America; becoming the first woman to win the WPI Board of Trustees' Award for Outstanding Teaching, and the third to become a full professor; and shepherding the creation of the Little Theatre, WPI's first dedicated theatrical venue.

She considers WPI's theatre program unusual because it spans so many student affiliations, something you would not see at many other schools. "I've always had great relationships with, among others, WPI's athletic coaches, who've encouraged their undergraduates to take part," she says. "There's always that person in an area you wouldn't expect who wants to participate. Here it's legitimate. You can do it. Everybody has a place at our table."

Looking back, Vick is pleased to realize that many of her fondest WPI memories have to do with the achievements of female students—most notably, the four trips by playwright Catherine Darensbourg '02 to the Samuel French Off-Off Broadway Original Short Play Festival in New York; and the many women who've blossomed as actresses, playwrights, directors, and theatre majors and minors.

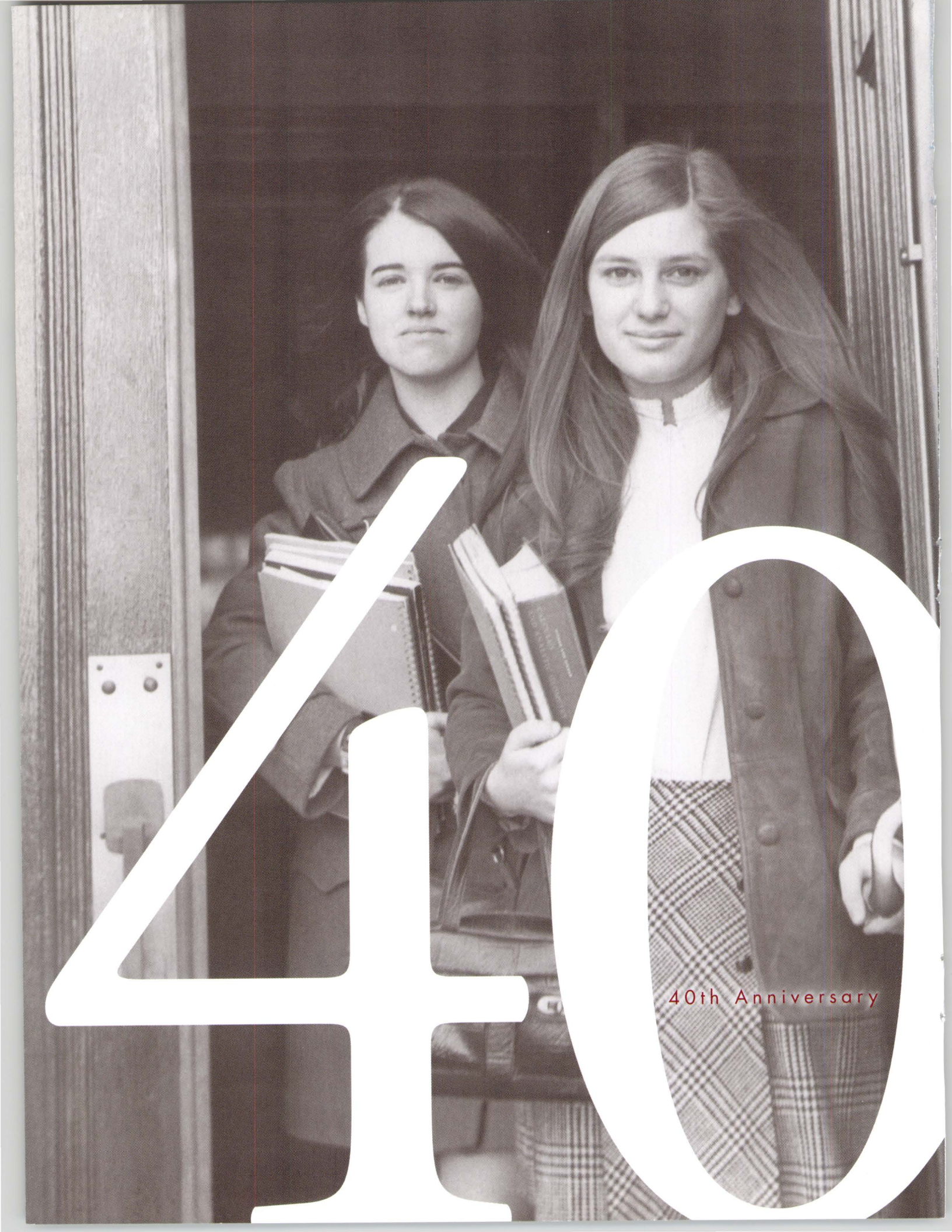
"I work hard to find the best person for the job, from the wee roles to the producer," she says. "I'm pleased that, so often through the years, the best person has been a woman."

A Dramatic Role



By Michael W. Dorsey

Inside WPI



40th Anniversary

In the fall of 1968, Jayne Rosetti and Lesley Small (opposite page) were the first female undergraduates to enroll at WPI, both math majors. They had to commute to classes since there was no housing for women on campus. The following year, 24 women were admitted; five of them commuted and 19 lived on the first floor of Sanford Riley Hall. Today, over 25 percent of each incoming freshman class is women—and that number continues to grow.



As WPI celebrates the 40th anniversary of its becoming a coeducational university, *Transformations* speaks with alumnae who lived through the early years, and with current students, faculty, and staff about the importance of women in the STEM fields.

When Lesley (Small) Zorabedian '72 entered WPI in 1968, she was one of just two female students at a university that had, for its first 100 years, kept its doors closed to women. “I felt very lonely,” she recalls. The campus offered no residence halls for women, so Zorabedian commuted during her freshman year from her home in nearby Spencer. “I went to class and came home. The library was my home base, particularly since there were so few women’s restrooms elsewhere on campus.”

In the 40 years since Zorabedian stepped foot on campus, the university has undergone extensive transformations. All 12 residence halls are now co-ed. Over time, more profound changes were wrought—from higher numbers of women faculty and high-level administrators, to programs geared to recruit and support women students.

Of course, these changes did not happen overnight. As Lorri (Lind) Caruso Byrne '73 attests, WPI was in some ways ill-prepared for its first cohorts of female students. “From the

The Women *of* WPI

By Eileen McCluskey

1:4

"I am pleased by the progress WPI has made in attracting and retaining these very talented, motivated women."

—Kristin Tichenor

orientation package that told us to bring jacket and tie for Sunday dinners—we did, and we wore them!—to the half floor of Sanford Riley Hall where preparations consisted of a WOMEN sign on the men's room door and locked entrances at either end of the hall, we knew the university had not put a lot of thought into what women students would need," she says. "But Dean [Bernie] Brown and others in the administration were wonderful, as was Ma Riley [Elaine Kowalewski '71, the first female residence assistant], and most of us survived."

From 1 in 74 to 1 in 4, and counting

"I've seen tremendous change in my 27 years at WPI," says Janet Begin Richardson, vice president for student affairs and campus life. "We've brought in many more female students, as well as more female staff and faculty."

Indeed, women comprise 26 percent of the Class of 2008. While that figure hovers slightly below the national average of 29 percent for female technological majors, it's a far cry from the early days of coeducation. In September 1969, 12 months after the first two female students were admitted, 24 women entered WPI, changing the men-women ratio to a still steeply tilted 74:1.

To be sure, the number of female students increased during the 1970s, but, as alumnae recall, it was still intimidating at times to be a woman on campus. "I came from an all-girls high school," says Mary Farren McDonald '79, CEO/CTO of the McDonald Consulting Group. "To say that I had culture shock at WPI is an understatement."

"I couldn't figure out how everyone knew my name, and kept racking my brain for where I had met them," she says of all the friendly greetings she received. "Only later did I find out that all the guys studied the Freshmen Record to learn the girls' names."

Allison J. Huse Nunn '73 recalls a similar memory. Walking across the Quad with a female friend, they were greeted—by name—by nearly everyone who passed them. "It was pretty intimidating at times," she admits.

But, says Nunn, "each year was a little easier, as more classes with female members matriculated. By the time I graduated, the incoming freshman women were accepted as rightful members of the class by most everyone on campus."

As recently as 2000, only 18 percent of WPI's entering class was female, reports Kristin Tichenor, vice president for



Professors Michelle Ephraim and Eleanor Loiacono regularly meet with their female colleagues, as part of the Women's Faculty Network.

enrollment management. "From the time I joined WPI, it was made clear that our university had a strong interest in and commitment to enrolling more women."

Looking at today's 1:4 ratio of female students to male, she says, "It's obvious that there is more work to be done, but I am pleased by the progress WPI has made in attracting and retaining these very talented, motivated women. We will continue working vigorously to encourage young women with great ability and aptitude to enroll at WPI."

Power lunches

As women students began to make inroads at WPI, so too did female faculty. Today, 50 of the university's 242 full-time faculty members are women. At the same time, "Women faculty still tend to feel isolated," says Michelle Ephraim, associate professor of English. Sensing a need to support her colleagues, she and Isa Bar-On, professor of mechanical engineering, founded the Women's Faculty Network in 2004.

The network holds informal brown bag lunches once every term. Through these confidential discussions, newer faculty and seasoned colleagues trade stories and advice on issues from the tenure process to committee work to classroom dynamics. "These informal bonds really help us,"

WPI's First Lady

While the decision to admit "co-eds" as undergraduates in 1968 changed the face of WPI dramatically, WPI's first female graduate, Audrey Carlan, hardly caused a ripple when she earned a master's degree in physics in 1957. She did make news headlines, though. Graduating with her husband and classmate, Alan Carlan, WPI's first married couple soon became the parents of the first full-blood alumni baby. The *Worcester Evening Gazette* headline called the Carlans a "Precedent-Shattering Pair."

The newspaper clipping has yellowed and faded, and the baby is now a 50-year-old systems analyst. But Audrey Carlan's memories of her pioneering achievements are fresh and vibrant.

"I never felt that as a woman I was treated any differently from the men," says Carlan, professor emerita of mathematics at Los Angeles Community College. "I always believed that WPI was more interested in starting its graduate physics program."

The Carlans met as undergraduates majoring in mathematics at Brooklyn College. Later, they went to work for American Optical in Southbridge, Mass., where scientists Harold Osterberg and Gordon Walker were influential in shaping Audrey Carlan's career. At American Optical, the Carlans took advantage of on-site courses in advanced mathematics and physics offered through WPI. When the program shifted to the WPI campus, only the Carlans continued, earning WPI's first graduate degrees in physics.

Audrey Carlan's investigations of the electromagnetic scattering properties of spheroids—done on an IBM 650 console that was

bigger than a refrigerator—could be considered WPI's first computer science project. She is the author of a practical text called "Everyday Mathematics for the Numerically Challenged," which she initially wanted to call "Calculating Women." A sailor, certified navigator, libertarian, and competitive bridge player, Carlan is the mother of three children and enjoyed 55 years of marriage to Alan before he passed away in 2006. She remains active at the Rancho Palos Verdes, Calif., home that she and her husband landscaped with rose bushes and dozens of fruit and nut trees.

Over the years, the Carlans enjoyed meeting up with other WPI alumni at regional events, where everyone initially assumed that Audrey was "just another alumni wife." She got a good laugh from their 50th Reunion invitation, which read, "Bring your wife along."

"Of course, Alan was gone at that point, but I called the alumni office to remind them that I'm a grad, too. We used to joke that WPI thought I was 'Aubrey,' not 'Audrey,'" she says. "When I enrolled, there was no place on the application to check Male or Female. Until I appeared on campus, I don't think WPI knew I was a woman."

—Joan Killough-Miller



Ephraim says. "We become better informed about what's going on around the university."

Eleanor Loiacono, associate professor of management, was in the midst of her tenure process when the network started. She jumped in, attending lunches and soliciting advice from her more senior female colleagues. She obtained tenure last year. "I still benefit from the multiple perspectives I get from my peers in the Women's Faculty Network on the post-tenure management of my career," she says.

Kristin Wobbe, associate professor and interim department head of chemistry and biochemistry, notes, "I'm the only female faculty member in my department. I can talk with my male colleagues about the same issues I discuss with my female colleagues, but I get a different perspective from the women faculty."

Priming the pipeline

For years, girls did not attend institutions like WPI because they weren't taking the high level math and science needed for admission. Now, young women are taking the right classes, but often don't find these fields attractive. "Our challenge is to help them see how a career in science, math, or engineering can impact the world in positive ways," Tichenor says.

That's why WPI has developed aggressive K-12 Outreach programs for girls and other underrepresented populations. "These programs," notes Tichenor, "emphasize how exciting science, math, and engineering can be and how it can help them make the world a better place."

K-12 Outreach, operated through the Office of Academic Affairs, offers over 40 programs for students from kindergarten through high school and their teachers. All programs are developed and run by WPI faculty and staff, and, says program director Martha Cyr (MS '87, PhD '97), "they encourage girls to feel as empowered as boys to perform academically."

Related outreach programs are offered through the Office of Women's Programs for girls in middle- through high school. WPI sophomore Renée Walker worked with two of the residential programs last summer, helping girls about to enter 7th grade (Camp Reach), and those about to enter grades 9 to 12 (WUNDERS: Women Understanding New Dimensions in Engineering Related Sciences). "It was lovely to interact with the girls," says Walker. "They reminded me of my three younger sisters back home in Jamaica. As I encouraged these girls to become engineers, I felt that I was helping them reach for their dreams. I hope my sisters will do the same."

Sara Duran '08 and Shelley Nicholson,
director of Women's Programs.

A WINning network

Of the variety of initiatives provided by the Office of Women's Programs, perhaps none is more popular than the Women's Industry Network (WIN), a mentoring and networking group for WPI's female students.

Each year, over 200 women sign up for WIN, reports director of women's programs Shelley Nicholson. Students meet female engineering and science professionals—many of whom are WPI alumnae—for four evenings of dinner, panel discussions, and small-group conversations. Groups of four or five students are paired with a professional according to academic and professional interests. The clusters also meet informally at other times during the year.

Graduate student Rachel Berg '07 knows that her participation in WIN made it easier to find the kind of work she has craved since elementary school.


Through WIN, she met Lonnie DeLuca '02, who introduced her to an internship at GE Aviation last year. Berg has since been offered a full-time position there, "and I would love to take it," she says, "but I'm currently weighing my options between going into industry and pursuing a PhD in space propulsion."

DeLuca, a process manager and engineering programs specialist with GE, says she devotes time to WIN "because I want to give back to a terrific institution." She has introduced GE to so many talented WPI students—both female and male—that the company recently put her in charge of entry-level recruiting for its Engineering Development and Operations Management Leadership programs.

Sara Duran '08, an electrical and computer engineering major who has been a member of WIN since her freshman year, also found the program to be beneficial—she met other women students and connected with female professionals in her field.

"It's not often that you'll find yourself in a room with over 200 women who will be the leaders of tomorrow," she says.

As an ECE major, Duran—who will head to Duke University this fall to pursue a PhD in the same field—explained that it's not always easy to be surrounded by so many men, especially in the classroom. "The hardest part for me was connecting with other woman," she says. "But overall, male students and professors don't look at us as women. They see us as engineers." ■

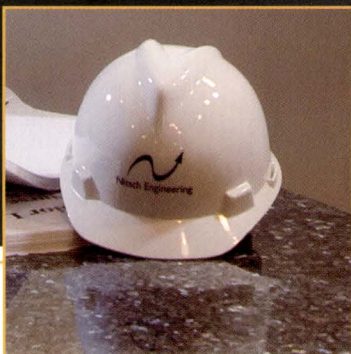


Judy Nitsch '75, Anni Autio '82, and Terese Kwiatkowski '83 share more than an alma mater. They hold the unique distinction of being the first three women presidents of the oldest engineering society in the United States—the Boston Society of Civil Engineers Section (BSCES) of the American Society of Civil Engineers. In fact, the current and fourth female president, Linda Hager, also has ties to WPI—she took graduate courses here.

Transformations asked these remarkable alumnae to share their thoughts on careers, professional organizations, and the importance of reaching out to other women in a mostly male profession.

Paving the Way

By Joan Killough-Miller



WPI's Alumnae Dynasty at the Boston Society of Civil Engineers



Judith Nitsch '75
President, Nitsch Engineering
Boston, Mass.
BSCES President, 1986–87

"For the first eight years of my career, I was the only woman engineer at my workplace."

Don Vaillancourt

>>> **Judy Nitsch feels fortunate** to have started her career working for a WPI alumnus—she considers Jim Dunn '61 a great engineering mentor, who helped her navigate the ins and outs of the profession. But despite the early success, she later learned that his firm almost didn't hire her. "They wondered if I could use a chain saw," she says, "and they

wondered if I could handle working with the men on job sites. They didn't realize that I have five younger brothers."

Though she has, in fact, never operated a chain saw, Nitsch's engineering career hasn't suffered. In 1989, she founded Nitsch Engineering and built a team of 70 employees and nine shareholders. Today the firm provides civil

engineering, land surveying, transportation engineering, and planning services, along with GIS (geographic information services) on projects in 15 states and six countries. She has advanced her firm to the forefront of sustainable design by creating and implementing green techniques on projects, which has led to working with world-renowned architects here and abroad. Noteworthy projects include the New England Aquarium, Brooklyn Bridge Park, the Connecticut Science Center, Boston's Big Dig, Atlantic Yards in Brooklyn, Acadia National Park, and the award-winning MetroWest Water Supply Tunnel project.

"About one third of Nitsch Engineering's engineers are women—compared with 10 percent nationally," she says. "We look for the best qualified candidates of both genders, but I think women seek us out because they see women at all levels of our firm, including three women engineers as shareholders. They realize they would have a good opportunity to get ahead without discrimination."

From Taking Notes to Taking Charge

In 1975, Nitsch's name came up as the "token woman" tapped to serve on the BSCES planning committee for the upcoming ASCE convention in Boston. When she received the list of committee assignments, she was surprised to learn that she had been appointed chair of a subcommittee.

"I went to the first planning meeting and found I was the only woman engineer. The other women there were engineers' wives, who'd come to plan the 'women's program' for the spouses. I was asked to take minutes. I did. At the second meeting, I was asked again to take minutes. I suggested rotating that responsibility. They did."

After the convention, Nitsch was asked to join the BSCES Membership Committee, and she became its chair a year later. She was then asked to join the Board of Directors, and she later served as its secretary, followed by vice president, which led to the presidency.

"I gained a lot of credibility through BSCES," she says. "And once I started my own business [then called Judith Nitsch Engineering], I realized that name recognition was invaluable."

The first alumna appointed to the WPI Board of Trustees, Nitsch currently serves on its Facilities Committee, which she considers a highlight of her professional career. In 2006 she was profiled in *Changing Our World*, an ASCE publication designed to inspire young women considering a future

in engineering. Since graduating from WPI, she has actively helped other women through her participation in the Society of Women Engineers (SWE) and BSCES. As well, Nitsch Engineering continues to organize Boston's Introduce a Girl to Engineering Day.

"I will speak with any woman engineer who calls asking for career advice, because as a young engineer I had no women to talk with professionally," she says. "For the first eight years of my career, I was the only woman engineer at my workplace."

"I tell young women engineers to remember: *all* of the rookies—male or female—on the construction site get teased and embarrassed by the old-timers. And usually the newbie is asked to get coffee. That's just a rite of passage," she says. "Being the only woman is sometimes lonely, and often enlightening, but it helps folks remember you."

When Anni Autio graduated and entered the job market, entry-level civil engineering job opportunities were scarce. "I received close to 100 rejection letters," she recalls. "This was



not uncommon, particularly in the New England area."

What was unusual—perhaps unheard of among male engineering graduates—was her first job offer: a word processor, with the promise that she would advance to full-time engineering assignments soon. "My foot is in the door, and I'm excited," she wrote in an optimistic note to WPI's class notes editor in March 1984. During a company hiring freeze, she was promoted to an entry-level engineering position, and for several years, she was the only woman in her group.

"Throughout my early career, I handled a number of gender bias issues, including lower pay, lack of advancement, and the denial of training requests to support project work. When I joined CDM in 1989, I found a workforce that had more women than I had ever worked with at previous firms."

A Career Commitment

Autio's involvement in ASCE began at WPI's student chapter, where she served as secretary during her senior year. "I had absolutely no idea at that time how my future would change, how my professional contact network would expand, or that I would continue to develop my leadership skills."

After graduation, she remained in touch with Judy Nitsch, whom she had met through SWE. A few years later, a colleague



>>> invited her to become a member of a new BSCES committee on infrastructure. "From there, my civil engineering career was launched," she says.


Highlights of Autio's service as BSCES president included overseeing the society's 150th anniversary celebration and serving on the local organizing committee for the 1998 ASCE Annual Conference in Boston. "Professional organizations provide opportunities for members to gain leadership skills," she says. "I view my ASCE membership as a commitment to my career. I'm proud to have been elected to serve two consecutive terms on the ASCE National Board."

"The climate has changed significantly since I graduated," she says. "Women now have an equal chance to enter the workforce and are protected by equal opportunity and zero

tolerance [anti-harassment] policies in the workplace. New technology—for instance, telecommuting—is also helping to balance the work-family equation, so that one's professional life can be more flexible and less stressful than it was even 10 years ago.

"The future looks brighter and there are open opportunities for leadership and advancement. This is due in part to the perseverance of the pioneering women who helped open the door to a more diverse and friendly work environment," Autio says.

"In 1982, when I attended my first SWE convention in Detroit, 600 women attended. In 1995, 1,800 women attended. I don't know the exact numbers today, but I do know that it is less lonely to be a woman in the workforce now."



"The future looks brighter and there are open opportunities for leadership and advancement."

Anni Autio '82
Senior Project Manager, CDM
Cambridge, Mass.
BSCES President, 1997-98

It was Terese Kwiatkowski's

father, a hydropower engineer, who inspired her fascination with building underground. At WPI, she excelled in basketball, field hockey, and softball. She was the first basketball player ever to reach the 1,000-point mark in just three seasons. She graduated the all-time leading scorer, with 1,441 points, and was inducted into WPI's Athletic Hall of Fame in 1989.

At GZA GeoEnvironmental, Kwiatkowski rose from field engineer to office project engineer to project manager and then to principal. Today she leads a team of 11 engineers, providing geotechnical design for foundations, tunnels, dams, utilities, marine facilities, transportation, and temporary underground structures. Her major projects include New York City's Second Avenue Subway, Boston's Big Dig Central Artery Tunnel, and the former Fleet Center (now TD Banknorth Garden).

"I have always had good support from my colleagues and my company," she says. "I generally feel that I was neither held back nor favored because I am a woman." Only once, on a site visit to a tunnel construction project, did Kwiatkowski encounter resistance, from an elevator operator who was reluctant to take her underground. "I was informed that tradition holds that it's unlucky for women to go into tunnels," she says. "My colleagues quickly intervened. The situation was over in about a second. Since that episode, I have visited many underground projects, none of which had any subsequent disastrous effects."

A Legacy of Accomplishment

Many of the GZA principals were active in BSCES, including founders Don Goldberg and Bill Zoino, and Kwiatkowski was encouraged to join that legacy.

"Being part of BSCES allows me to apply and develop leadership and management skills that I incorporate in my professional work," she says. As BSCES president, Kwiatkowski

"I have always had good support from my colleagues and my company."




Terese M. Kwiatkowski '83
Senior Vice President and Principal,
GZA GeoEnvironmental Inc.
Norwood, Mass.
BSCES President, 2006–07

worked closely with the Younger Members Group in an effort to improve communication between this group and the board. Other milestones include converting *BSCES News* from hard copy to electronic distribution, launching a cable TV show called *Civil Engineering Today*, which airs monthly on the Boston Neighborhood Network, and drafting a strategic action plan for 2009–2014.

Kwiatkowski, a member of WPI's Civil and Environmental Engineering Advisory Board, continues to provide oversight to a number of BSCES committees, and serves on The Engineering Center board of directors and the board of trustees for The Engineering Center Education Trust.

She points to numbers showing that women are still very much a minority in civil engineering. "However," she insists, "women have been part of the field for quite a while now, and my perception is that if you understand the work and can communicate clearly, there should be no gender issue."

"It's more of a competence issue, which applies to both women and men," she says. "I'm sure it was easier for me to overcome gender issues because of the women who preceded me, and that it's easier for those who've joined the profession after me." ■



It's been nearly a decade since **Lisette Manrique** and **Shruti Pai** first crossed paths at WPI. Manrique, pictured, a Massachusetts native whose parents had come from Colombia and Puerto Rico, was starting her sophomore year after transferring from Boston University. Pai, the daughter of Indian parents, had spent her childhood in Zambia before attending boarding school in South Africa, and then traveling across the Atlantic to college in Worcester. At various points in their WPI careers, the two biomedical engineering majors took the same courses, lived in the same dorm, conducted research in the department's labs, and did their IQPs in Costa Rica. Both developed close relationships with professors George Pins and Kristen Billiar, as they worked toward their BS and then MS degrees. They also shared a lifelong interest in art. Today, although they live on opposite coasts—Manrique outside of Boston and Pai in Seattle—they remain good friends. In separate conversations, the two women talk about the life-saving projects they're doing, and how WPI helped launch them into the biomedical field.

By Joanne Silver



Raising the Bar

In the cafeteria at Codman & Shurtleff Inc.,

Lisette Manrique is animated as she discusses a promising new device to treat a swelling condition in the brain called hydrocephalus. Eyes sparkling, golden earrings swinging, she describes the work that has kept her engineering team busy for months, that will send her to India to check out a manufacturing facility, and that—if all goes right—will lead to a new product next year. Wearing a stylish black dress, cropped sweater, and sleek black boots, Manrique looks like the last person on the planet who would ever sport a pocket protector.

And yet the 26-year-old with a BS ('03) and MS ('05) in biomedical engineering is a rising star. She leads an interdisciplinary team of more than a dozen people at her Raynham, Mass., company, a division of Johnson & Johnson. She is involved with every step of the product development process, concept to launch. She is as comfortable charting the pathways of the brain as the personality types that comprise her group. Most of all, she is brimming with enthusiasm.

"It has been my experience that if you have the desire and drive to achieve something, then nothing should be able to keep you from attempting it," she says in her profile on engineeryourlife.org, a website created by WGBH and targeted at high school girls. For as long as she can remember, Manrique has received complete support from her family, her high school teachers in Tewksbury, Mass., her professors at WPI, and the employers who have benefited from her can-do attitude. She recalls the scroll saw she received at age 13 from her father, who works in high tech; the many visits to ACCION, a microfinance nonprofit where her mother is vice president of human resources; the "Human Body Program" she attended as a 15-year-old, in which she studied with Boston University medical students and visited an emergency room and a morgue; and the high school job at a physical

"If you have the desire and drive to achieve something, then nothing should be able to keep you from attempting it."

—Lisette Manrique '03

Shruti Pai imagines a career in biomechanics, possibly in Africa. And she hopes she will be able to inspire other young women to discover options they never knew they had.

therapy office. "I realized that I didn't necessarily want to be touching people all day," she says, "but I got so excited about the tools.

"No one ever told me, 'You should go into something woman-friendly,'" she notes. And so Manrique happily followed her love for tools into biomedical engineering, where she was able to combine her passion for tinkering with her desire to do something that would help people. At WPI, she worked with professors Allen Hoffman and Holly Ault in the Assistive Technology Resource Center, eventually doing her MQP and graduate thesis in conjunction with the Massachusetts Hospital School, in Canton, Mass. Her first effort centered on devising a saddle for youngsters with disabilities to use while engaging in physical therapy on horseback. Manrique rattles off the challenges she encountered—individuals of varied ages and sizes and muscle tone—and the ultimate reward of aiding an activity that could improve the children's physical condition and sense of well-being. For her master's thesis project, Manrique helped develop an obstacle-sensing system for a child's wheelchair that could produce auditory feedback, signaling the child to change direction.

A good word from Professor Pins helped Manrique land her first job, at a medical device company in Andover, Mass., where she focused on spine discography. "I learned a tremendous amount there," she says. "I had to do tests, write reports, follow protocol. I got to dabble in everything." Before long, she brought this passion for crafting solutions to a Johnson & Johnson company concerned with the spine, and then to her present position in a company specializing in medical devices for neurosurgery.

"The best part of being an engineer is being able to solve problems with a hands-on approach," Manrique says. (On the walls of her cubicle, a large chart of the human brain hangs across from a cartoon featuring Snoopy claspings Charlie Brown and the words HUG IT OUT!) Whether she is guiding her coworkers or designing a sophisticated piece of machinery, Manrique keeps her touch grounded as much in humanity as in skill.

On a January evening, Shruti Pai '04, MS'05, has just walked in the door—not from her challenging work studying diabetes and foot injuries, but from a session on an indoor climbing wall. "I do rock climb outdoors, where it's most fun," she says over the phone. "I love being in Seattle. We've got the beach, the mountains. I'm a fishing woman. I go

backpacking and snowshoeing. And I love the city side of things. There's a lot of life here."

Before long, it becomes clear that there's a lot of life wherever Shruti Pai is. A doctoral candidate in biomechanics at the University of Washington, Pai is happiest when she is exploring, both intellectually and geographically. She can claim three continents as home: Asia, since she is a citizen of India; Africa, where she grew up; and North America, where she has lived since entering WPI in 2000. "When I was younger," she admits, "I always felt like an outsider. Now I feel so at home everywhere."

Pai's professional efforts are geared toward helping others feel more comfortable in their worlds. At Seattle's Center of Excellence for Limb Loss Prevention and Prosthetic Engineering—within the U.S. Department of Veterans Affairs—she investigates the connections between diabetes and foot problems. She spends a lot of time sampling tissue from the feet of cadavers, trying to "understand the difference between diabetic and normal tissue." Such knowledge could lead to better insoles to relieve pressure, and therefore to fewer unhealed ulcers and amputations among patients with diabetes.

"I love brainstorming," Pai says. Speaking from Seattle, she traces her excitement back to WPI: "My MQP really spurred me on." For that research—which she has published and presented at a professional conference—she investigated utilizing metal plates rather than wires to stabilize the sternum in open heart surgery patients. Pai measured the forces on different plate configurations applied to synthetic human bone. "I really liked being given a problem, testing, doing the data," she explains. She also feels lucky to have worked with Billiar and Pins as both an undergraduate and graduate student.

Had it not been for a teacher in her high school in South Africa, however, Pai might not have found her niche so readily. As a teenager, she was most interested in biology, physics, and art. "I had no idea until the very end how I was going to tie this all together," she says. "But a teacher encouraged me to take an aptitude test." When it pointed to biomedical engineering, Pai was intrigued. Up until then, she admits she thought that an engineer "sounds vague and so masculine."

Now, several years away from completing her PhD, Pai imagines a career in biomechanics, possibly in Africa. She plans to keep traveling and seeking adventures. And she hopes she will be able to inspire other young women to discover options they never knew they had. ■



The Face *of* Engineering

By Joanne Silver

"We create and design the experience—
how it feels, how it smells, how you
pick it up, the benefits. We call
ourselves storytellers."

At her office in Estée Lauder's Manhattan headquarters, Lise (Wivestad) Jorgensen '87 is talking about paint. Not just any paint—automotive paint. A day before jetting off to Athens for a strategy meeting of worldwide markets, Jorgensen, vice president of the company's global product development, is illustrating how she taps into a variety of fields for product ideas.

To be sure, no woman would want to be slathered in a coat of blue enamel. But Jorgensen explains, "Look at how paint shines on the surface of a car, how it accentuates curves and features. Optics, pigmentation, and reflective materials play a significant role in makeup, too. With paint, you want consistency of color. I, too, need consistency of color."

This sort of outside-the-box (or can, in the case of paint) thinking has propelled the WPI graduate from a BS in chemical engineering to a strategic position with one of the most respected names in cosmetics, skin care, and fragrances. Speaking on the phone from New York, Jorgensen gives a share of the credit to her alma mater. "Where else can you get the understanding and learning and see the applications? Where else do you get the privilege of seeing the link to the practical world?" she asks. "Why am I successful? I had the opportunity to learn and truly understand the fundamentals of science and allow my creativity to apply it. I have the breadth to understand lots of areas—not to the depth of experts, but I have the capability of digging deeper."

Jorgensen's MQP provided an early—and emotionally charged—sense of the real-world impact of her studies. For that project she worked at UMass Memorial Medical Center, designing consistent blood clots in order to do dissolution studies of the clot-busting enzyme TPA. The clots would be injected into rabbits to cause strokes, and then physicians would inject TPA and observe its effects. Shortly after Jorgensen completed her MQP, her father suffered a heart attack, but because TPA had not yet been approved, she was unable to persuade doctors to use it on him. When her mother had a stroke more than a decade later, however, TPA had become a standard tool, and Jorgensen gratefully witnessed its positive effects.

As drawn as she is to knowledge and discovery, Jorgensen is equally committed to a strong sense of principles and beliefs. When asked where she developed this quality, she cites her family first and her college second. At WPI, she says, all the courses consider how a value system applies to the world.

In the cosmetics industry, Jorgensen promotes trustworthiness and honesty. "We want to deliver the goods in an ethical way," she says and then elaborates: "When we develop any product, we need to be sure that not only are they safe—so that no one will be harmed—but more importantly, ensure the products deliver on what we say they will do. There's a lot of snake oil out there."

In January, Re-Nutriv Ultimate Youth Creme became the most recent product to appear on the market as the result of "the pipeline of innovation," Jorgensen explains, excited. She offers a brief history of the science of genetic aging, touching upon groundbreaking research done jointly with MIT and Harvard, as well as the natural compound resveratrol, caloric restriction, and other factors that can bolster longevity. "We've been using resveratrol for 15 years as an antioxidant," she says proudly of Estée Lauder's scientific quest for youthful skin.

In addition to the science of the product, Jorgensen says, "We create and design the experience—how it feels, how it smells, how you pick it up, the benefits. We call ourselves storytellers. We try to create the desire and the need. The story is the emotional link to the practical application of the product."

A summer internship at Procter & Gamble in Ohio before her senior year at WPI served as Jorgensen's career Eureka! moment, launching her into a lifetime of brainstorming for consumers. She loved the impact on everyday life, the practicality of connecting science, technology, and research to a user's wants, and then seeing the result on store shelves.

Now, as a 42-year-old wife, mother of two, and leader in her field, Jorgensen feels a kinship with Estée Lauder customers. "I understand what consumers need and do," she says. "I see what's bumming them out. I know what's going to sell. I'm a consumer like everyone else." Having worked for Bristol-Myers Squibb and Clairol, in addition to P&G and Estée Lauder, Jorgensen says, "I have worked on every category from head to toe." From Fixodent to Oil of Olay, from Loving Care to Herbal Essences body wash, she has introduced and improved products across the shopping spectrum.

Skin has a particular appeal for Jorgensen. "It's alive," she says. "It's constantly changing—throughout life as well as throughout the day." She describes the diverse beauty routines of women around the world: Asians gladly spend great amounts of money and time to have flawless skin; Americans want everything done in one quick step; Europeans value a customized approach. In her frequent trips for business she sets aside a couple of days to notice people's purchasing patterns, how they live, what kind of pollution surrounds them, whether they eat on the go. And yet, when asked what tips she would recommend, Jorgensen is quick to say, "It's not just what product you buy. Sleep well. Eat well. Be well. A balanced life, a healthy attitude—your grandmother probably also said this to you."

Women, in fact, figure prominently in Jorgensen's approach to life. Her reaction to women at WPI is simple. "We need more of them," she says. "Women carry a different energy and skill. It's more collaborative. The more women we can get into the senior level of an organization, the more functional that organization will become." ■

Designed for a Cleaner

When Sarah Arsenault was a girl growing up

on her parents' apple orchard in central Massachusetts, she knew three things: she had a fierce appreciation for the environment, she had an affinity for math and science, and she'd never be a farmer.

"It was part of the reason why I wanted to go to college," says the WPI chemical engineering alumna. "Both my parents are really hard workers and they taught me the value of hard work. But I didn't want to work the land."

Although she opted out of the family business, she says that in her own way she is working the land—by making sure it has a future.

Arsenault, a senior research engineer at United Technologies Research Center (UTRC), the central research and development center of United Technologies Corporation (UTC) in East Hartford, Conn., is an award-winning researcher in the development of safe, effective hydrogen storage systems for automotive fuel cells. In 2006, she and the Hydrogen Storage team at UTC were recognized by the Department of Energy for the successful development and demonstration of a generation 2 Hydrogen Storage prototype based on complex metal hydrides.

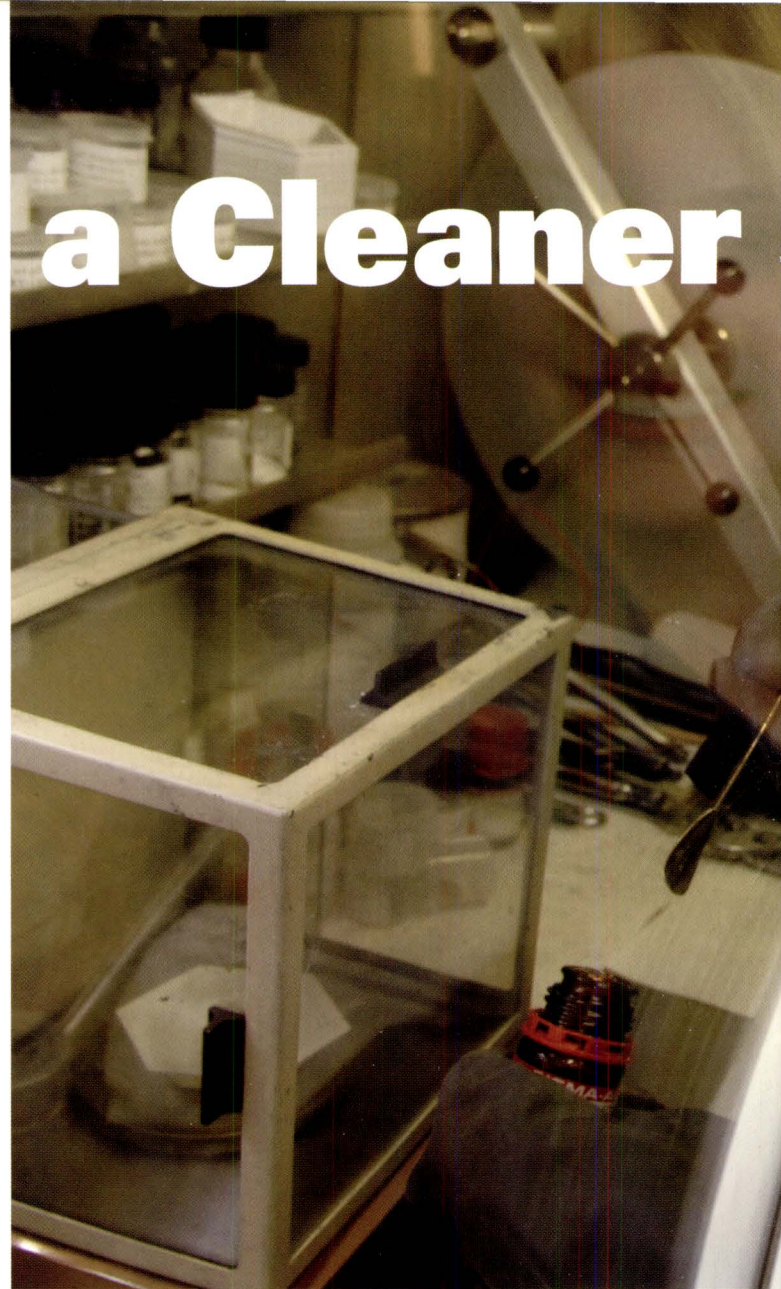
From the day she was accepted to WPI, Arsenault's goal was to go into environmental engineering (she minored in it). It was therefore no surprise that she interned for Capaccio Environmental Engineering, an environmental consulting firm, where she designed industrial wastewater treatment systems. Although the experience was invaluable, it was not as satisfying as she had hoped it would be.

"I realized I absolutely hated cleaning up after someone made a spill," she says, referring to accidents such as that of the Exxon Valdez, the tanker that ran aground in Prince William Sound in Alaska in 1989, dumping 10 million gallons of crude oil into the sea.

"I wanted to work on new technology that would prevent negative environmental effects from happening," says Arsenault, who was named one of the 15 New Faces of Engineering for 2007 by Engineers Week, a program that highlights the work of young engineers and their impact on society.

Her viewpoint, she says, is that we, as humans, come up with "brilliant technology"—from the internal combustion engine to nuclear power—but we don't necessarily recognize the environmental impact it will have.

"Look at our problems with global warming," she adds. "We have developed all of these breakthrough technologies in the past 200 years without awareness of their global cost. If we had understood those technologies better, we would have found a way around the environmental consequences. That's



the essence of my motivation. I wanted to do research that would have an impact upfront by designing environmentally friendly technologies. This was where graduate school made sense as an obvious route to the additional skills I needed to make an impact."

Arsenault received her PhD from Tulane University in 2003, where she specialized in heterogeneous catalysis. It was the study of how catalysts accelerate chemical reaction rates that eventually led her into the fuel cell field.

UTRC's research in hydrogen storage is funded through a Department of Energy contract, part of President Bush's Hydrogen Fuel Initiative. Although it's still in development, Arsenault says the project has made great strides toward turning the technology into a commercial reality by developing initial system prototypes. The impact on the environment is enormous, she says.

Hydrogen storage is absolutely fundamental to fuel cell technology. There are different ways to store hydrogen: as a high-pressure gas, as a cryo-liquid, or in a solid form—in a

Future

By Kate Evans-Correia

As a leading research engineer in the development of hydrogen storage and fuel cell design, Sarah Arsenault '98 is on a mission to develop the next generation of environmentally friendly technologies.

Tony Rinaldo

solid-state hydrogen storage material, such as a hydride or in a sorbent material. Arsenault's team developed a method of solid storage that consists of a hydride that absorbs hydrogen. When heated, using the latent heat from the vehicle's fuel cell, the hydride desorbs hydrogen, allowing it to be used to power the fuel cell.

Although many experts predict the commercial use of fuel cell technology for automotive applications is another 10 years away, Arsenault insists, "it's a critical application for the future of energy production."

Another initiative she believes is as vital to the future as fuel cell technology is the advancement of women in science and engineering. Arsenault, a member (and past officer) of her local chapter of the American Institute of Chemical Engineers, has been instrumental in promoting the chemical engineering field to local colleges and hosting middle- and high school girls visiting UTRC.

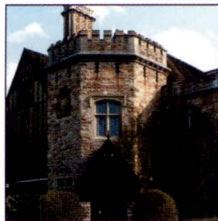
Arsenault herself had a middle school math teacher who was extremely influential in developing her interest in math

and science, encouraging her to take on special projects.

In high school, she was one of only three girls in Advanced Placement courses and the only one interested in math and science. She admits to being an oddity. But she found her middle ground at WPI, where she became one of a number of women in the chemical engineering program, and she never looked back.

Although engineering is in her blood, an MBA is in her future. Arsenault is pursuing a degree from Carnegie Mellon University because she wants to be able to influence the business aspects of her research. "How much influence can you have in an organization if you're in the trenches?" she asks. "You have to be able to provide some guidance on the direction the business needs to take."

Still, her passion for engineering is not likely to wane anytime soon. "I think that engineering is going to have a huge impact on the future—in energy, the environment, the medical field," she says. "I can't think of another discipline that has such an impact on society." ■



AlumniConnections



In the previous issue of *Transformations*, Alumni Association President **Bill Krein '62** introduced the Association's new strategic structure. He also called on alumni to roll up their sleeves and build on the WPI legacy that helped launch them in their own careers. In this second installment, Krein explains why alumni are the greatest untapped resource that WPI has.

What are the top priorities for the WPI Alumni Association?

The Alumni Association remains strongly focused on alumni engagement, career services (in conjunction with WPI's Career Development Center), and support of the upcoming capital campaign. The Board of Trustees recently adopted a resolution in support of the campaign, and we intend to take a similar action. Another initiative of particular interest is enacting a commitment to substantially increase scholarship funding.

You've spoken of a new model for alumni engagement...

Yes, we need to engage all alumni—whether it's through advisory boards, committees, events, or regional chapters—and begin to find ways to grow involvement. With new information-sharing technologies, we can leverage the talents of alumni who are busy, who have careers and family, and who can't travel to campus easily, but who still want to help. The vision is for the staff of the alumni office to provide a central point of contact. There's a need and a role for everyone. It's as simple as that.

We also need to take a look at how we're asking alumni to help. If the only contact you have is a phone call asking for money every five years, understandably, you might become a bit jaundiced. But if we ask you to share your talents and experience, then you'll want to stay involved. What we've

found in the past is that when members of the alumni community have turned to each other for advice, people are perfectly willing to help.

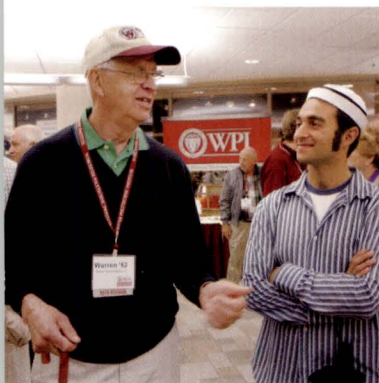
Beyond what alumni can offer to each other, how are they poised to serve their alma mater, as WPI endeavors to expand its reputation nationally?

Up to now, the Association has been largely an inward-looking organization. With the arrival of President Dennis Berkey and Dexter Bailey, vice president for development and alumni relations, the question became: What can the Alumni Association do to catch up with and support WPI's great strides?

We, the collective alumni body, represent a tremendous resource—not only in financial capital, but in experience and expertise. We are a deep and broad source of information. There are exciting possibilities for alumni to serve as a sounding board to the administration. We are in a position to advise and inform the Trustees and the President's Office, and to present the voice of alumni. While we still want to represent the interests of alumni, we also want to engage them to be a part of the development and advancement of WPI.

How do you envision people and technology working together to link alumni to the campus community?

Here's a perfect example: When Team 190, the WPI-sponsored robotics team, took top honors in the national FIRST finals in Palo Alto, Calif., last year, it showed the world what WPI is all about. You can't see that and not be proud of your alma mater. The Alumni Association hosted a reception where local alumni could meet the students on the team and their advisors. We now have the means to get the word out to everyone, rapidly, on our new alumni website, alumniconnect.wpi.edu, and through electronic mailings that are available to all alumni who furnish an email address to the alumni office. We've got the capability to host discussion groups on the new Alumni-Connect online community and post personal updates and pictures. The time couldn't be better for all of us to come together for the common good of WPI.





Don't miss Reunion Weekend June 5-8! The Classes of 1933, 1938, 1943, 1948, 1953, 1958, 1963, 1968, 1973, and 1978 are invited to reconnect with classmates and learn about WPI today during this fun weekend. All classes are invited to the Alumni Golf Tournament on June 5—check your mail for details. More information at wpi.edu/+reunion.

Connie's Corner

By Connie Horwitz

When my own college alumni magazine arrives in the mail, I make a beeline for the class notes section. I marvel at where people are going, where they've gone, and how they've made the decisions that landed them at their current destination.

For some, there have been measured choices—I like to think of them as thoughtful speed bumps—with time to think and implement. For others, there have been exit and re-entry ramps, planned and unplanned. When they return to their road, it may have changed its terrain—a new bridge here, an intersection there—offering new routes. For others, there has been nothing but high speed traffic lanes and rapid changes. And then there are the classmates who are working and building their lives without sharing a word with their peers.

I find that I have come full circle. My first professional position fresh out of college was to serve as an alumni placement officer at Northeastern University. (Back then the focus was completely on placement.) Over the years, I have tacked my way through the newer fields of career development, marketing, and professional search trying to balance the milestones and setbacks of life: marriage, another degree, family, volunteerism, divorce, regrouping. Sometimes it was wonderful and sometimes it was not. Still, I always knew who I was. Career development was, as I learned, part of my life's development.

I'd be naïve to think that all college graduates have found their way to career development professionals at some point to help them map out their journey. Not everyone needs to

do that. But I had the recent opportunity to attend an adult-only life review workshop that left each participant wondering why all adults don't go through a tune-up like that now and then. It's good to have other people hear your own inner voice when you may have grown deaf to it.

Here at WPI, there's a wealth of opportunities for alumni and students. In my new role, I embrace numerous but exciting challenges. I hope to provide career assistance to alumni in need—by phone, email, or *The Bridge*, or in person at a regional meeting. I hope to connect students with alumni in their field. I suspect alumni will be amazed at what these young people have to offer—as the bright stars of their generation. This connection, this networking, is how positions are filled in most organizations. And for alumni who want to revitalize their rusty skills in an intense but quick program to get back in the game, I will collaborate with my colleagues on campus to provide a program to do just that.

As I begin my new challenges, I challenge you as well—I invite you to get in touch and share your career experiences. Please take a few minutes and share what led you from one role to the next, even if you are just starting out. Write to cdcalumni@wpi.edu at any time.

As we celebrate women at WPI in this *Transformations* issue, I hope that you will think about the turns your career has taken. Whether you're traveling the high road or the low, I sincerely hope you're savoring the ride.

Connie is the Assistant Director of WPI's Career Development Center. Contact her at cdcalumni@wpi.edu.

Class Notes

Staying Connected with Old Friends

Material for Class Notes comes from newspaper and magazine clippings, press releases, and information supplied by alumni. Due to production schedules, some notes may be out of date at publication, but may be updated in future issues. Please allow up to 6 months for your news to appear in print. Send your Class Note to alumni-editor@wpi.edu. You may fax it to 508-831-5820, or mail it to Alumni Editor, Transformations, WPI, 100 Institute Road, Worcester, MA 01609-2280.

1930s



Roman "Joe" Kozoil '34 is an enthusiastic golfer and an avid sports fan. He lives in Portland, Ore., with his nephews. His wife, the former Claire Bullis, died in 2006. A World War II veteran, his

decorations and citations include the European-African-Middle Eastern Theatre Campaign Ribbon with four battle stars, American Theatre Ribbon, and Victory Medal World War II. Joe was discharged at Fort Dix, N.J., in 1946. He is most proud of his certificates of recognition from General Wesley Clark of the U.S. Armed Forces and President Harry Truman.

1950s

Moved by the amount of obituaries in the Summer 2007 *Transformations*, **Don Lewis '51** is looking to get in touch with his classmates. (See his letter, page 3.) Contact him at dlew616@yahoo.com or by mail at Bethel Health Care, Bethel, CT 06801.

Ed Shivell '54 writes, "Recently **King Webster '54** and I, with our wives, attended the *Imagine and Achieve* presentation with President Berkey here in New Hampshire. I recommend you make an effort to attend one of these gatherings when possible."

Howard Whittle '54 reminds classmates that you can find news and photos online at alum.wpi.edu/+1954.

Richard Campbell '58 writes, "Two weeks into my 23rd year of teaching acoustics and audio engineering in the ECE department,

I suffered a spinal infection resulting in life in a wheelchair. I taught via Internet in 2005, an exhausting experience."

Solon Economou '58, a retired Army officer and engineer, continues as a columnist for the *Cape Cod Times*. His columns, which appear on alternate Thursdays, often refer to his WPI roots and to the scientific and technological advancements of WPI professors. He lives in South Dennis, Mass.

Bill Rabinovitch '58 had a solo show of his paintings in Miami recently. He's also been exploring electronic compositions, which he plans to incorporate in his film about Jackson Pollock (Pollocksquared.com).

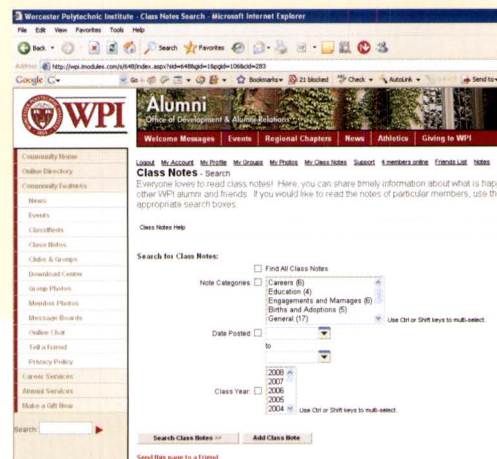
Jim Alfieri '59 and his wife live in Santa Rosa, Calif., but were able to join classmates for the Homecoming luncheon and football game last fall. They were traveling back east to visit family.

Bob Allen '59 retired to Virginia Beach, but returns to Sterling, Mass., periodically, where he and his wife have a family home. Bob is a Master Gardener and keeps busy doing this and some volunteer work.

Dave Bragg '59 is northern New England regional manager for Milone & MacBroom. He and his wife also run a bed & breakfast in Newcastle, Maine.

Joe Bronzino '59 was featured on a Connecticut Public Television series called "work. learn. live." The segment featured area business leaders and industry experts. Bronzino emphasized the need for a skilled workforce for the state's medical device manufacturing industry.

After a trip to Italy in September, Nancy and **Fred Costello '59** headed for Bonita Springs, Fla. Fred and classmate **Lee Courtemanche** joined **Win Wassenar** at the Venice Country Club for some golf last spring. Lee is now living in Marietta, Ga., and working part time for Ahlstrom Pumps.



Wayne Gass '59 retired as dean of administration and business manager at Mount Holyoke College. He remains in South Hadley, spending much of the summer in Orleans on Cape Cod.

Brad Harper '59 has retired but continues to work part time, heading to zero time, he says. He served as co-chair of his 50th reunion at Northbridge (Mass.) High School, where **Win Wassenar** was a classmate.

Richard Kingsley '59 lost his wife, Rita, in July 2006. "We married the week after I graduated from WPI, raised five children, and lived in eight cities from coast to coast. I retired for the third and final time in 2005. I'm now involved in volunteering at the church (overseeing maintenance work), driving meals-on-wheels, and working out at the local YMCA. My current job description also includes traveling and enjoying our 11 grandchildren (ages 5 to 20).

Ed Saulnier '59 of Colchester, Vt., represented WPI President Dennis Berkey at the inauguration of the new president of St. Michael's College last year. He and his wife, Peni, also took a 27-state trip in their camper last summer, visiting children and grandchildren.

Win Wassenar '59 and his wife, Vanessa, went to the Galapagos Islands this summer with three grandchildren. He is retired from Williams College and living in Williamstown, Mass., doing a little consulting and golfing, and spending time in Venice, Fla., in the winter. Win reminds us to send news items to wwassena@williams.edu.

1960s

Richard Brewster '60 photographed before-and-after records of cleft palate surgery at Royal Victoria Hospital in Banjul, Gambia. His wife, Susan, tended to patients in the recovery room, which lacks running water and is plagued by mosquitoes. He sends out a call for volunteers to help with the hospital's water supply system. Check out mercy-ships.org for information on the floating hospital program.

Since his retirement in June as university vice president, **Steve Hebert '66** has eluded all efforts to honor his decades of service.

Joe Ferrantino '67 (left in photo) and **Bill**



Krein '62 presented Hebert with a token of the Alumni Association's gratitude—a handsome golf bag customized with the WPI logo. Krein reports, "Steve was hugely

impressed and asked that we convey his appreciation to all of his WPI alumni friends."



Joe Ferrantino '67, right, met up with **Tim Golden '76** and **Charlie Wojewoda '67** in San Gimignano, Italy, in September 2007. Joe writes, "Tim and his wife were there celebrating Charlie's 40th wedding anniversary, and Donna and I had come to celebrate ours. We all met by accident in the lobby of a small hotel. If we'd come 10 minutes earlier or later, we would not have known the others were there! Charlie and I and our wives were together at WPI in June for the 40th Reunion. We didn't realize we both had plans to visit Italy, let alone the same small village. What a small world!

Ken Battle '68 writes, "After three reasonably successful years running my own con-

sulting business, I have returned to the world of employment, with Fluor in New Jersey. My business is still open for short-term projects and follow-up with existing clients. I have no plans to retire as I enjoy engineering too much, along with the benefits it brings." Ken's business website, www.kenbattleservices.com, has photos of his latest addition: an '84 Ferrari 400i, as well as the other sports and GT cars in his collection.

Peter Holcombe '68 was named Woodturner of the Month at The Woodturning School in Damariscotta, Maine. After 30 years as a self-employed carpenter, he now hopes to sell projects in galleries and online.

1970s

U.S. Rep. **Todd Akin '70** (R-MO) was honored with the 2007 Distinguished Christian Statesman Award by the Dr. D. James Kennedy Center for Christian Statesmanship.

Domenic Forcella '70 presented a photography exhibit at the grand opening of the Heritage House cultural center in Hazlehurst, Miss. The showing featured his black-and-white portraits of the state's blues legends, which will become part of the center's permanent collection. His work has also appeared on the CDs of local artists, in local and national blues publications, and on www.megablues.com.

Randy Sablich '70 was promoted to vice president of the Metrigraphics Precision Components Division of Dynamics Research Corp.

David Asquith '71 writes, "After 34 years in retail management, I am happily retired in Central Florida with my wife, Linda."

Peter Markunas '71 joined Woods Hole Group as a coastal engineer.

Paul Lacouture '72 was appointed to the board of directors of NeuStar Inc. He is the retired executive vice president of engineering and technology for Verizon Telecom.

Steve Wilkinson '72 is a senior industrial engineer at Amgen in West Greenwich, R.I., where he is leading the introduction of lean manufacturing.

Peter McDermott '73 was appointed co-chair of the Massachusetts Bar Association's Business Law Section. He continues to practice in the Boston office of Banner & Witcoff.

Tom Descoteaux '76 was named Utility Contractor of the Year by the Utility Contractors Association of New England. He is vice president of R. H. White Construction.

Ben Jacobs '76 serves as deputy director for grant programs and community outreach for the Council for Arts and Humanities for Staten Island, N.Y. He continues to perform as a storyteller.



Neal Wright '76 joined Hayes, Seay, Mattern & Mattern Inc. in Roanoke, Va., as a vice president and market director for military programs.

Al Barry '77 helped launch a new business, with offices and a factory in China. Wuxi REM Ltd. does mechanical design, machining, and forming for contract customers. Al and Laurie split their time between homes in Atlanta and West Falmouth, Mass. Son Matthew is teaching middle school in Atlanta, and daughter Ashley just graduated from Cornell.

Dominico Grasso '77 was interviewed by the *Burlington Free Press* on his goals for the College of Engineering and Mathematics at the University of Vermont, where he has served as dean since 2005.



Jeff Harrington '77 recently expanded Harrington Group Inc. with the opening of a new office in Charlotte, N.C. His recent publications include articles in

WERCSheet and the *NFPA Journal*.

Joseph Williams '77 retired from Ford Motor Co. as program manager for the Ford Fusion. He was part of many programs, from the Windstar to the Lincoln Town Car to the Mustang. "I will miss Ford Motor Co., and all the people there, including several WPI alumni. I plan on spending more time with my children and restoring my classic Mustangs."



Bob Chapell '78 was promoted to senior project manager in the Dedham, Mass., office of Woodard & Curran.

Paul Lefebvre '78 is technical director at the Naval Undersea Warfare Center Division Newport. He lives in Tiverton, R.I.



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*Based on one person, age 61, who defers the first payment for 10 years. Charitable gift annuities pay a life income based on your age. You earn a tax deduction and income for life, and you support WPI with a generous gift. Ease of giving is our service to you—you can use appreciated stock to create this gift.

ALDEN
SOCIETY

John Wallace '78 invites classmates to check out his website at homepage.mac.com/wallacejj/Menu2.html.

Wesley Wheeler '78 joined Pantheon Inc. in Toronto, as executive director. He previously held top management positions at Valeant Pharmaceuticals International, DSM Pharmaceuticals Inc., and GlaxoSmith-Kline. He is the son of **Wes Wheeler '54**.

Joseph Kolis '79 is executive director of the Clemson University Research Foundation Board.



Jason Providakes '79 (MSEE '80) was appointed director, senior vice president, and general manager of the Center for Enterprise Modernization (CEM), the federally funded research and development center (FFRDC) that the company operates for the Internal Revenue Service.

1980s

James Idelson '80 is vice president of marketing for Ezenia! Inc.

Mark O'Neil '80 is CEO of DealerTrack Inc., a company that provides automatic credit applications to auto dealerships.

Martin Rowe '80 writes, "I've recorded and released my fifth song about electrical engineering, 'Electrical Heroes.' Now all those great scientists and inventors who made significant discoveries in electricity—from Franklin to Hertz—are no longer 'unsung.'" See tmworld.com/article/CA6504260.html.



Paula (Green) Curry '82 and the attorneys of her previous firm, Kaitz + Associates, joined Sherin and Lodgen LLP of Boston.

David Kelly '82 was appointed CEO of Bluefin Robotics, a wholly-owned subsidiary of Battelle Memorial Institute.

Linda (Mitchell) Manchester '82 is founder of Essential Solutions LLC.

Steve Rohrbacher '82 founded Millennium Plating Company (magplate.com) in 2004. He writes, "Our niche is the plating of magnesium alloys for the aerospace and commercial markets. Our customers range from Lockheed Martin to Harley-Davidson. Together with my wife, Ruth, and daughter, Melissa, we continue to prosper and grow."

Wally Towner '83 writes, "I'm working on two new ventures: Dynamic Lease, a highly

In the Public Eye

Richard Whitcomb '43 was inducted into the **Paul E. Garber First Flight Shrine** in the Wright Brothers National Memorial in North Carolina. "Dick Whitcomb's intellectual fingerprints are on virtually every commercial aircraft flying today," said a

Smithsonian aviation historian ... **Len Polizzotto '70** was profiled in **Mass High Tech** recently. He is senior executive for strategic business development at The Charles Stark Draper Laboratory in Cambridge, Mass. ... the Worcester **Telegram & Gazette** ran a historical piece on Cutler Associates and its first hire: **Fred Mulligan '71**, now company president ... **Ron Zarrella '71** made **Rochester Business Journal's** 2007 Top 50 list ... **Alden Bianchi '74** was named a Massachusetts Super Lawyer in **Boston Magazine's** annual list of the Commonwealth's Top 100 Lawyers ... **Reed Mosher '77** earned the **Bronze Order of de Fleury** medal for his accomplishments at the U.S. Army Research and Development Center, where he serves as technical director for Survivability and Protective Structures and lead technical director for Military Engineering ... biathlon devotee **John Osowski '77** was interviewed and photographed for an article in the **Rochester Democrat & Chronicle**. He competed in the Empire State Winter Games this year ... **Eric Hahn '80** was featured in the IEEE journal **Spectrum**, in an article called "The Codemaker" ... **NASA's** Southwest Research Institute recently featured **Jennifer Crock '95** on its IBEX (Interstellar Boundary Explorer) website. She is program manager for ATK, the company responsible for the IBEX spacecraft's propulsion motor ... **Jeremy Hitchcock '04** and **Tom Daly '04's** company, DynDNS, was named a "Best Small Company to Work For" by **Business NH Magazine**. The company also received the **Innovation Rocks! Award** from the Business Resource Center at the state's Division of Economic Development and made the **Inc. 5000** list of "Top Companies in Telecommunications" ... **Todd Prokop '07** was honored with the **North American Interfraternity Conference Award of Distinction**. The TKE alumnus is working toward a master's in civil engineering at WPI.

differentiated equipment leasing company, and TD Corsair & Co., my financial planning practice. Carolyn has her own property insurance agency. Don't know about you, but this three kids in college thing is getting old fast."

Michael Bonder '84 is vice president of manufacturing at DTC Communications, a video and audio surveillance company.

John Herrin '84 is vice president of manufacturing for SuperPower Inc., manufacturer of high temperature superconducting (HTS) materials and devices.

Robert Kilroy '84 was named a partner in the labor and employment law group of Mirick O'Connell.

Joseph McCartin '84 is CIO for National City Corp.

Stuart McLean '84 is a managing director of Alvarez & Marsal ImpART Group.

Bruce Harley '85, technical director of Conservation Services Group, received a 2007 Legacy Award from the Energy & Environmental Building Association. He has

published widely and gives seminars on home energy efficiency and sustainable building.

Dave LaBranche '85 retired in 2005 from a 20-year career as an Army Corps of Engineers officer. "I have been working in my second career as a geospatial engineer with Northrop Grumman in the DC metro area. The geospatial technologies profession is growing rapidly, with great opportunities for engineers."



Jo Anne Shatkin '85 joined CLF Ventures, a nonprofit environmental consulting affiliate of the Conservation Law Foundation, as managing director.

Eileen Ego '86 and her partner, Corrine Frost, were featured in a 2007 Mother's Day newspaper article on the battle for gay marriage rights in Connecticut. They live in Griswold with their daughters, Kailey and Kianna.

Bookshelf

Recent and new publications by the WPI community

Finding a Fallen Hero: The Death of a Ball Turret Gunner

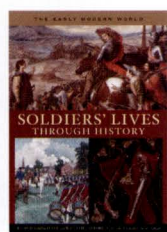
by Bob Korkuc '84 and James M. McCaffrey *University of Oklahoma Press*



When Bob Korkuc's uncle was lost on a bombing mission during World War II, the family thought that his body had never been recovered. In 1995 they learned that Anthony "Tony" Korkuc, a gunner on a B-17 Flying Fortress, was buried at Arlington National Cemetery. Bob Korkuc's book documents his seven-year search for the truth about what actually occurred over the skies of Germany half a century ago. "A riveting story of what must have been one of the most dangerous and vulnerable jobs in all of war," says filmmaker Ken Burns.

Soldiers Lives Through History: The Early Modern World

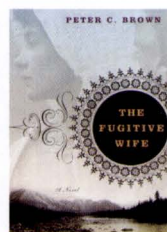
by William Astore '85 and Dennis Showalter *Greenwood Press*



Astore and his co-author draw on the words of soldiers and period historians to render richly detailed descriptions of military life from the 15th- to the 18th century. Topics include recruitment, weaponry, living conditions, leadership, motivation, and morale. An associate professor of history at Pennsylvania College of Technology (an affiliate of The Pennsylvania State University), Astore holds a master's degree from Johns Hopkins University and a doctorate from the University of Oxford.

The Fugitive Wife

by Peter Brown *W. W. Norton & Co.*



In 1900, Edwin "Ned" Hacker Brown, WPI Class of 1898, set out from Worcester to prospect for gold in Nome, Alaska. His grandson, Peter Brown, uses his grandfather's adventures—and his mechanical expertise—as the starting point for a historical novel that brings together an idealistic engineer and a resourceful farmwoman fleeing a disastrous marriage. *The New York Times* calls *The Fugitive Wife* "an enormously satisfying first novel about the dreamers and schemers who flocked to Alaska at the turn of the 20th century."

Tim Daisy '87 joined Prism in Wilmington, Mass., as sales and marketing executive for North America.

Rick Farland '87 was promoted to director of product engineering at Hyde Tools in Southbridge, Mass.

Jasmohan Singh '87 (graduated in 1986) and his wife, Gona, have one son, Indraveer, born in 1995. Jasmohan is managing director of Frick India Ltd., a leading industrial refrigeration presence in India, doing business in 19 countries.

Michael Blazejowski '88 is northeast sales manager for the commercial/food sectors of Alchemy Systems.

Julie Peck Trevisan '88 and her husband, Jay, live in Fuquay Varina, N.C., with sons,

Zach, 6, and Luke, 4, and daughter, Kendall Gail, born Nov. 15, 2006.

Lt. Col. **Kevin Daul '89** commands the Air Force Nuclear Weapons and Counterproliferation Agency.

Jeff Goldmeier '89 was promoted to fuel flexibility platform leader in GE Energy's Power Generation business unit. Based in Schenectady, N.Y., he leads product development of heavy duty gas turbines to meet expanding fuel markets.

Fran Hoey '89, senior vice president of Tighe & Bond, made *Business West's* list of "40 Under 40."

Todd Wyman '89 is vice president, Global Supply Chain—Transportation, at General Electric in Fairfield, Conn.

1990s



Joe Barbagallo '91 was promoted to senior vice president in Woodard & Curran's White Plains, N.Y., office.

Gerry Burns '91 was appointed CEO of USRobotics, provider of wireless and wired connectivity technology for the home or small business, with headquarters in Schaumburg, Ill. In September 2007, classmate **Brian Gosselin** joined Gerry as COO.

Loan Ngô '91 was promoted to vice president, Barnes Enterprise Systems, at Barnes Group Inc. in Bristol, Conn.

Yael Schwartz '91 (PhD) is founding CEO of Hygeia Therapeutics (formerly Orcas Therapeutics). The company has signed an exclusive agreement to develop and commercialize a topical synthetic estrogen treatment for vaginal wall atrophy that was developed at Yale University.

Andrew Hoyer '92, director of professional services, North America, at Care Stream Corp., was named one of *Rochester* (N.Y.) *Business Journal's* "40 Under 40," sponsored by the Simon School of Business at the University of Rochester. He represented WPI at the inauguration of RIT's new president.

William Katzman '92 and Anita Tyner celebrated their new life together as husband and wife on July 21, 2007. The celebration took place in Rush, N.Y.



Quentin Rissler '92 has served as lead bridge engineer at RETTEW since 1999. He was recently named one of the firm's first associates.

Andrew Stern '92 is senior VP, business development, at Ecosphere Energy Solutions.

Matt Boutell '93 and his wife, Leah, announce the arrival of Annastasya Jeanne, born Sept. 27, 2007, and welcomed warmly by her four older siblings.

Christopher Bowen '93, MS'99 is a co-author of *Professional Visual Studio 2005 Team Systems*. He is lead applications architect at Monster.com in Maynard, Mass., and a member of Microsoft's Patterns & Practices Customer Advisory Board.

**Christine (Fillion)**

Miska '93 was honored at a March ceremony in Cambridge, Mass., as one of ten 2008 Women to Watch by *Mass High Tech: The Journal of New*

England Technology. Miska works as a systems engineering functional manager at BAE Systems IR Imaging Systems in Lexington, Mass.



Steve Vassallo '93 was promoted from entrepreneur-in-residence to principal at Foundation Capital. He lives in Palo Alto Calif., and holds 19 patents.

Leonard Belliveau '94 and his wife, Stacy, welcomed daughter (and future WPI graduate), Alexandra on June 4, 2007. Big sister Maya, 3, could not wait to meet her. Len is a senior fire protection engineer and office manager of the Warwick, R.I., office of Hughes Associates in Baltimore.

Doreen Burrell '94 would like you to join her in welcoming her adopted son, Aiden Patrick. "He arrived on June 17 and is such a blessing," she writes.

Laurence "LJ" Dallaire '94 and his wife, Amy, announce the birth of their daughter, Gabrielle Marie, on June 22, 2007. She joins her sisters Isabelle, 5, and Camille, 3. LJ recently started as a fire protection consultant for Code Consultants Inc. in New York City.

Danielle (Luongo) Fries '94 (MS FPE '98) joined American Alarm and Communications in Arlington, Mass., as a fire protection engineer.

Dena (Niedzwiecki) Mechoso '94 and her husband, Diego, are pleased to announce the birth of their first child, Ella Marie, born Jan. 7, 2008.

Bethany Salek '94 and her husband, Andrew, welcomed their second child, Brendan Peter, on Dec. 3, 2006. His big sister, Lindsey Grace, is 3. Bethany continues her career at Saint-Gobain in Worcester, managing the customer service and quality departments for the Grains & Powders Division.

◀ **Craig Stephan '94** and his wife, Lauren Winterholer, recently returned from two years with the Peace Corps in Swaziland. Before their service in Africa, Craig worked for 10 years as a hardware designer

engineer at Cabletron Systems/Enterasys Networks in Rochester, N.H., and Lauren directed the N.H. chapter of Girls on the Run. They live in Madbury, N.H., and can be reached at swazimoon@yahoo.com.

Jonathan "Jeb" Bertucci '95 and his wife, Michelle, welcome their third daughter, Gianna Mei, born Dec. 22, 2006. They, and big sisters Kayla, 9, and Mariah, 5, are living happily in Apex, N.C.

Tom '95 and **Raina (Shahbazi) Yeulenski '97** welcomed their first son, Jack, Aug. 30, 2007.

Jenn (Healy) '96 and **Mark Anderson '95** welcomed their second child, Lydia Rose, on Feb. 23, 2007. Mark is senior fire protection engineer at Vermont Yankee, and Jenn serves on the National HR leadership team at PricewaterhouseCoopers. They reside in Chesterfield, N.H.

Christopher Bruno '96 and his wife, Dianne, celebrated the birth of a son, Alexander, on May 16, 2007. They recently moved to Hudson, Mass., where Chris works for Teradyne Inc. as a systems architect.

The family of **Sue (MacPherson) '96** and **Eric Kristoff '94** has grown with the addition of Hayden, born in November 2005. Older brother Perrin was sad to give up the undivided attention of two parents, but is warming up to Hayden. Sue recently celebrated the first anniversary of her consulting business, The Kristoff Group LLC (kristoff-group.com).

Melissa (Perkalis) '96 and **Jason Lamb '98** welcomed their third child, Michael William, on Dec. 22, 2006. He enjoys playing with his two older sisters, Sarah and Meghan.

Tim Tully '96 and his wife, Cara, added another boy to the family. Aidan Michael was born in December 2006. His big brothers are Connor, 10, and Seamus, 3.

Nathan Berube '97 is a project manager at Environmental Compliance Services in Agawam, Mass. He married Mary Packard last year.

Hector Hernandez '97 writes, "My wife, Sandra, and I welcomed our first child, Gael David, on July 15, which also happened to be my birthday. Quite a great present!"

Shannon Hogan '97 married Matthew Hollander, April 21, 2007. They both serve as pediatricians at Misawa Air Force Base in Japan.

Alison Faye (Possas) Johnson '97 and her husband, Christopher, welcomed to the world their son, Alexander Christian, on Jan. 27, 2007.

Brian '98 and **Kellie (Martin) Bresnahan '01** welcomed their first child, Claire

Martin Bresnahan, on July 29, 2007. They live in Grafton, Mass.

Matthew Eastwood '98 is vice president of Enterprise Platforms Group, International Data Corporation, Framingham, Mass.

Kristen (Gongoleski) Fairbanks '98 and her husband, Jonathan, welcomed their first child, Connor, on Dec. 20, 2006. They make their home in Coventry, R.I.

Jill (Johnson) '98 and **Aaron Korthas '99** are pleased to announce the birth of twins, Jack and Kali, on Dec. 13 and 14, 2007. Jack weighed in first, at 7 lbs. 2 oz., and Kali came along three hours later at 5 lbs., 13 ounces. Mom is taking a break from teaching high school chemistry to stay home with them.

John Lambie '98 and his wife, Wendy, were also blessed with twins. Emma Faye and Evan Maverick were born Sept. 29, 2007, in Houston, Texas. After a brief stay in intensive care, both kids are healthy and happy to be at home.

Emma Palmacci '98 volunteers with Connecticut Greyhound Adoption, helping prepare retired racing dogs make the transition to house pet. The *Hartford Courant* ran an article on her efforts to help dogs left jobless by the closure of racing tracks find new homes. She works as a project analyst for Nerac Inc.



Aaron Shumate '98 married Satsuki Koyama. Aaron's grandfather officiated at the Sept. 1, 2007, wedding. The couple lives in Irvine, Calif.



Jennifer Brown '99, second from left, married John Gardner, Sept. 15, 2007. Shown with her are maid of honor **Jessica (Hamel) Kelly '99**, **Jennifer Marcello '99**, and **Tara Devarakonda '99**. Also in attendance were **Jennifer Marcello '99** and **Liam Kelly '98**. After a honeymoon in the Greek Islands, the couple lives with their two dogs in Woburn, Mass. Jen works for BiogenIdec in Cambridge as an oncology research scientist.



Justin Cozzens '99 and Jill Howard were united in marriage Aug. 25, 2007. They reside in Charlotte, Vt. Justin is employed at GE Healthcare, and Jill works for Vermont Information Processing. Her grandfather, Joseph Sotens, taught at WPI for many years.

Timothy Miranda '99 and Elizabeth Stewart announce the birth of Sophia Elena, on March 9, 2007.

2000

Mark Barr is a seminarian at St. John's Seminary. He was profiled recently in *The Pilot*, the Boston Archdiocese newspaper.

Kristiferanne (Dryer) and Ryan Abraham '98 welcomed their daughter, Haley Elizabeth, on Jan. 2, 2007.

"Married the love of my life, Jenene, on Jan. 27, 2007," writes **Stefano Ceriana**. They happily announce the birth of their daughter, Anna Sophia, on Oct. 16, 2007.

Holly (Weymouth) Fanjoy and her husband, Rob, welcomed their first child, Jacob, on Dec. 16, 2007. Holly is completing her residency in emergency medicine at the University of Michigan and will start employment at Eastern Maine Medical Center in Bangor in the fall.

Scott "Skoot" Hamel is in the PhD program at the University of Wisconsin, Madison, researching long-term creep of wood plastics. He completed his master's at the University of Colorado in August 2005, and married Ellen Adams on Sept. 30, 2006.

Steve and Lisa (Baroffio) Vallee welcomed Alexander Scott on Nov. 30, 2007.

Nathan and Sarah Snow Wilfert welcomed their second child, Ridge London, Aug. 24, 2007. The family resides in Redmond, Wash.

2001

Brian Blair is serving in the Navy. He married Caitlin Deeble, an elementary school teacher.

Mike Gorse works for Duxbury Systems in Westford, Mass., as a programmer of Braille translation software. He participates in the Vision 5K walk in Boston, with fellow employees—both blind and blindfolded—as a fund-raiser for advocacy, literacy, and rehabilitation programs for people with visual impairments.

John Gleeson took the men's title in the Stratham (N.H.) Fair Road Race last summer. His recent races include the 2007 Boston Marathon and the Mt. Washington Road Race.



Paul Leemans (MS CS) is living in the Netherlands and working for Philips International in Eindhoven. He was recently promoted to director, Internet, Intranet, Portal. His fourth child (pictured) was born in March 2007.

Stacey Leisenfelder graduated from SUNY Upstate Medical University with a PhD in microbiology and immunology. She is now a postdoctoral scientist at the University of Connecticut in Farmington.



Many alumni turned out for the wedding of **Michael Quigley** and Jennifer Grimes on Aug. 12, 2006. The couple lives in Stoneham, Mass.

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2002

Navy pilot Lt. **Matthew Billings** had the honor of flying a group of Red Sox players who visited his base at North Naval Air Station for a tour of a Navy destroyer last summer. His co-pilot on the MH-60 Knighthawk (Sierra) helicopter ride was a Worcester State grad, and the rest of the chosen crew were also Red Sox fans. He has been stationed in Coronado, Calif., for three years and has served two tours of duty in Iraq.

Brian Conway and Kathleen Wilson were engaged on Feb. 13, 2008. Brian works as a software engineer in Marlborough, Mass. Kate is a graduate of Merrimack College ('01) and is a QA Engineer in Framingham.

Kevin and Shannon (Hoosick) Cornwall '03, who were married in February 2005, welcomed their first son, Conor Xavier, on Aug. 10, 2007.

Meghan (Fraizer) Cryan and her husband, Marc, are proud to announce the birth of their second child, Molly Rose, born Sept. 24, 2007. The family also includes big sister Emma.



David Daltorio (MS CPM) joined Woodard & Curran as a project engineer.

Thomas Geer was promoted to superintendent at Consigli Construction Co., where he has worked since 2005. He has had several academic institutions as clients, including Harvard, Framingham State, and the University of Vermont, and he is currently managing a regional high school project.

Michael Krager and Alyssa Chelotti became engaged on Feb. 22, 2007, in North Conway, N.H. Michael is working at Kidde-Fenwal as a mechanical engineer. Alyssa is an elementary school teacher.

2003

David and Andrea (Maderiro) Baker's baby, Lola Jane, was born Feb. 2, 2006. "Andrea has taken up American Sign Language while being an amazing stay-at-home mom," says Dave. He is working at Item NPD (itemnpd.com), and when not spending time with his family, still manages to get out racing. They live in Bristol R.I. "Check out bakersdozenracing.com to see pictures of us and our adventures!"

Sam Gutmann, Neal Bradbury, and Steve Frank started Intronis, an Internet-based backup system in Englewood, N.J.

2004

Jeff Bacon, senior software engineer at SeaChange International, was named one of *Mass High Tech's* "People to Watch Under 30."

Correction: **John Baird** received a master's degree in biostatistics, not epidemiology, as reported in the last issue. He graduated from the Yale Graduate School of Arts and Sciences. John is now a PhD student in the Department of Biostatistics at the University of Pittsburgh Graduate School of Public Health. More information on his Create a Comic Project, which promotes literacy for school children, may be found at ccproject.comicgenesis.com.

Erin Dupak and Thomas Daly were married June 23, 2007. Wedding attendants included **CJ Chretien** and **Jake McAleer '05**. Erin received a master's degree in bio-engineering from the University of California, San Diego. She is an R&D engineer at Boston Scientific. Tom is president of Dynamic Network Services. The newlyweds reside in Nashua, N.H.

Anna "Hammer" Foss and Craig "Ralphie" Dionne '03 became engaged on Jan. 8, 2008. Craig is a loss prevention consultant for Liberty Mutual Property, and Anna is a product specialist for Rogers Corp. They reside in Woodstock, Conn. A fall 2008 wedding is planned.

Anthony Maietta became engaged to Lauren Boulanger on Sept. 24, 2006; they will be married on July 6, 2008. He is currently working for Simonds International as director of new product development for Wood Processing Products. He is also the sole proprietor of Maietta Handbuilt Bicycles.

An excerpt of **Daniel Wallace's** Sufficiency report, "Defrosting Embryo Adoption," written for the Center for Adoption Policy, was published in the book *Opposing Viewpoints: Reproductive Technologies*, published by Thomson Gale. His report examines current practices of embryo adoption.

2005

Dale Ames recently joined Beswick Engineering's Product Engineering Dept.

Marta Katrzyna Krajewska Asack and her husband, Louis, welcomed their first child, a baby boy, on April 10, 2007.

Jared Birmingham, left, and Nick Williams (both '02, '04 MS FPE) celebrated Independence Day 2007 by bungee jumping from Macau Tower—at 764 feet it's the world's



highest commercial jump. The former FIJI roommates now share a 10th-floor apartment in a high-rise that overlooks the jump site.

Despite their death-defying idea of fun, Birmingham and Williams spend their days ensuring safety of others. They work in Macau for Rolf Jensen Associates, providing third-party fire protection and life safety review services to new casino operators in the island's burgeoning Vegas-style entertainment district.



Janet Moonan joined Woodard & Curran as a civil engineer. She is working on her MS in environmental and water resources engineering at Tufts.

Jessica Reidel is engaged to David Sarcione. The wedding is planned for the fall of 2009. They live in the DC metro area and plan to purchase their first home soon.

Master of Natural Science

Bob Gillies '68 was elected to serve as a member of the National Education Association Board of Directors in Washington, D.C., and a member of the Massachusetts Teachers Association Board of Directors, based in Boston. He is professor emeritus at Quinsigamond Community College.

Obituaries



William F. Drake '33 (Phi Gamma Delta) of Framingham, Mass., died Oct. 5, 2007.

Predeceased by his wife, Anne (Gallagher), he leaves four children. A

longtime industrial engineer for Dennison Manufacturing Co., he later founded William F. Drake Associates and opened Millwood Farms Golf Course, which his family still operates.

Harold B. Bell '34 (Theta Chi) of Worcester died Oct. 6, 2007. His wife, Corinne (Johnson), died in 2004. Two daughters survive him. Bell worked at Hobbs Manufacturing as a purchasing agent and was vice president of Worcester Stamped Metal.

Warren R. Burns '34 (Sigma Phi Epsilon) of St. Petersburg Beach, Fla., and Plymouth, Mass., died May 31, 2007. He was an engineer for Carter's Inc., and later for Sara Lee Corp. He was predeceased by his wife, Avis (Graves), and a daughter. A son survives him.



Charles J. Egan '34 (Sigma Alpha Epsilon) of Lexington, Mass., died March 8, 2007. Predeceased by his wife, Helen (Carney) in 1978, he leaves two children.

Egan was retired from Liberty Mutual Insurance Co. as chief underwriter.

Transformations recently learned of the death of **Harold F. Greeney '34** in 1996. He was retired from Sandy Hill Corp. He and his late wife, Alice, had three children.

Herbert V. Leckie '35 (Phi Sigma Kappa) of Plymouth, Mich., died Aug. 25, 2007. His wife, Pauline, died in 1995. Two children survive him. Leckie was retired from Occidental Petroleum Corp.

Daniel J. Harrington III '36 (Sigma Alpha Epsilon) of San Diego, Calif., died Sept. 10, 2006. A graduate of the U.S. Naval Academy, he served as chief of staff of the Naval Air Basic Training Command in Pensacola, Fla., and retired from the Navy in 1969. He and his wife, Joyce (Hancock), had five children.

Transformations notes the death of R. Michael Hood, known at WPI as **Ralph I. Houdush '36**, in 1993. He and his wife, Rose, had two children. He was a retired accountant for the Massachusetts state government.



Walter B. Bauer Jr. '37 (Phi Gamma Delta) of Columbus, Ohio, died Jan. 23, 2007. His wife, Elizabeth, died later that year. He was vice president of William Bayley Co.



John C. Bradshaw '38 died Dec. 24, 2006, leaving his wife, Helen. A former engineer for U.S. Steel, he lived in Rocky River, Ohio.

Oscar A. Fick Jr. '38 (Lambda Chi Alpha) of Westbrook, Maine, died Oct. 10, 2007. He was retired from S. D. Warren Co., where he worked for 35 years, serving as chief electrical engineer and superintendent. His wife, Connie (Lewis), died in 1991. Two children survive him.

Henry S. Blauvelt '39 (Phi Sigma Kappa) of Liberty Corner, N.J., died Feb. 18, 2008. Predeceased by his wife, Eleanor (Gillett), he is survived by three children. Blauvelt was retired from Public Service Electric & Gas as assistant general manager of electric transmission and distribution.

R. Adrien Jacques '39 (Alpha Tau Omega) of Ho-Ho-Kus, N.J., died June 11, 2007. He leaves his wife, Patricia (Hardy), and three children. His first wife, Helen, predeceased him. A sales engineer, he worked in management for several machine tool companies.

Arthur H. Mallon '39 (Phi Kappa Theta) of Worcester, died Sept. 11, 2007. His wife, Helen, died in 2006. Three children survive them. A proud alumnus, his license plate read WPI 39. Mallon earned a master's degree in civil engineering from Northeastern University and taught at several colleges in the Boston area, where he also contributed to renovations of historic landmarks. He later worked for the U.S. Department of Defense and the Environmental Protection Agency.

Donald Ramaker '40 (Phi Gamma Delta) of South Glastonbury, Conn., died Sept. 12, 2007. He worked for Hamilton Standard for 37 years and retired as chief of design. He leaves his wife, Jean (Mitchell), and three children.

Alden T. Roys '40 of Worcester died July 19, 2007. He earned a master's in mechanical engineering from WPI in 1963 and worked at Alden Research Laboratory. He was the son of the late Francis W. Roys, Class of 1909, a former professor and interim president of WPI. Survivors include his cousins and his longtime caretaker, Lucille Bressette.

Transformations has learned of the death of **Donald S. Denio '41** (Theta Chi) in 2005. He was retired from Boston & Maine Railroad. His wife, Patricia, survives him.

John S. Ingham '41 (Alpha Tau Omega) of Surprise, Ariz., died Dec. 25, 2006, leaving his wife, Doris. He earned a master's degree in aerospace engineering at California Institute of Technology and worked in research and development for the U.S. Air Force. He later retired from ARO Inc.

F. Douglas McKeown '41 (SIM '62) (Lambda Chi Alpha) of Worcester died April 12, 2007. His wife, Rosamond (Hughes), died in 2005. Two daughters survive him. McKeown worked at U.S. Steel for 25 years and later retired from New England High Carbon Wire Corp. He served as assistant director of research at WPI in the 1960s, helping students and faculty collaborate on corporate research projects.

Edwin M. Ryan '41 of Alexandria, Va., died April 7, 2007. After serving as a naval aerospace engineer during World War II, he joined Piasecki Helicopter Corp. He later served as a mechanical engineer for the Navy's Bureau of Aeronautics and the Naval Air Systems Command. Predeceased by his wife, Jane, he leaves four children.

Jerome E. Schread '41 (Phi Kappa Theta) of Stone Mountain, Ga., died May 26, 2007. He leaves his wife, Marion (Collins). He worked for Bath Iron Works in Maine.

Philip J. Hastings '42 (Theta Chi) of Strongsville, Ohio, died May 5, 2007. He was retired from a 39-year career with Union Carbide, during which he traveled to many parts of the world to implement new furnace technology for steel production. He leaves his wife, Mary (Starbuck), and five children.

Kelvin H. Kiely '42 (Alpha Tau Omega) of Reading, Mass., died April 1, 2007. A longtime mechanical engineer for General Electric, he leaves four daughters. He was predeceased by a son.

Warren Robert "Bob" Lotz '42 (Sigma Phi Epsilon, Skull) of Bayside, Wisc., died Jan. 26, 2008. The former president and chairman of Cecco Trading Co., he later founded Timber Holdings International with his son Brian. His expertise in organic wood preservatives resulted in several patents on non-toxic treatment methods. He was a longtime trustee of The ALS Association, which established the Lotz Humanitarian Award in his honor. Survivors include his wife, Adelle, and four children. A daughter preceded him in death.

Paul C. Yankauskas '42 of Long Beach, Calif., died Nov. 26, 2007. He was retired as plant manager from Ohline Corp. Survivors include his wife, Helen, and six children.



Jackson L. Durkee '43 (Alpha Tau Omega) of Bethlehem, Pa., died June 14, 2007. He leaves his wife, Marian (Carty), and three daughters. An expert on steel suspension bridge construction, he spent most of his career with Bethlehem Steel Corp., where he developed the parallel-wire strand method of cable construction. He later taught at Cornell University and developed his own consulting practice. A former president of the American Society of Civil Engineers, he was elected to the National Academy of Engineering in 1995 and honored with WPI's Robert H. Goddard Award for Outstanding Professional Achievement in 1998.

George F. Fairhurst '43 of Waldorf, Md., died March 1, 2007. He leaves his wife, Joyce, and five children. He retired from RCA in 1974 as director of product assurance and later held the post of director of strategic planning for Downey Community Hospital.

Harry H. Merkel '43 (Alpha Tau Omega, Skull) of Brewster, Mass., died Aug. 27, 2007. He leaves his wife, Nancy (Ellis) and three children. He was predeceased by his first wife, Frances (Rickard). Merkel was retired from Mercury Co. as CEO and board chairman.



Robert A. Painter '43 (Theta Chi) of Winchester, Mass., died May 25, 2007. Survivors include his wife, Louise (Brennan), and two children. Painter founded Electronic Instrument and Specialty Corp. and later served as president of Beta Labs Inc. and Specialty Corp.



Carle W. Highberg '44 (Lambda Chi Alpha) of Sycamore, Ill., died Oct. 10, 2006. He was the retired vice president of research and development for Elgin Diamond Products. Predeceased by his wife, Mary (Carpenter), he leaves two children.

Floyd E. Smith '44 (Lambda Chi Alpha) of Greenville, S.C., died Sept. 27, 2006. He leaves his wife, Mary White, and six children. Smith was retired from GE Lighting.

Transformations recently learned of the death of **Wallace A. Underwood '44** (Phi Sigma Kappa) in 2004. A former partner with Samuel Ayres Associates, he later worked for American Can Co.

Howard D. Gerring '45 (Alpha Tau Omega) of Fairfield, Conn., died April 16, 2007. He retired from a 25-year career with International Paper Co. in 1978 and later worked for Connecticut National Bank, now Bank of America. He leaves his wife, Lillian (Pastore), and three children. He was predeceased by his first wife, Jeanne (Adams).

John T. Hegeman '45 (Theta Chi) of West Vancouver, British Columbia, Canada, died April 14, 2007. He leaves his wife, Nanette, and two children. He was retired as vice president of Chemetics International.

Rev. **Willard "Bill" Legg '45** of Leicester, Mass., died June 16, 2007. He is survived by his wife, Eleanor, and three children. A longtime Methodist minister, he served churches in Massachusetts, Connecticut, and Vermont.



Roger P. Roberge '45 (Phi Gamma Delta, Skull) of Fort Myers Beach, Fla., and Hendersonville, N.C., died March 18, 2007. He is survived by his wife, Shirley (Carlson), and three children. He was predeceased by a son. A longtime HVAC engineer, he was retired as the owner of Roberge Associates.

William G. Hogan '46 (Phi Kappa Theta) of Southbury, Conn., died Oct. 18, 2007. He leaves his wife, Mary Ann (Wallace), and six children. He was a retired orthodontist.

Cecil A. McCurry '46 (Sigma Alpha Epsilon) of Zachary, La., died March 27, 2007. He was a retired papermaker. He worked for James River Corp. for 23 years. Survivors include his wife, Beti, and four children.

Ronald B. Paris '46 (Sigma Alpha Epsilon) of Worcester and Fort Myers Beach, Fla., died June 30, 2007. Predeceased by his wife, Elia (Ronnback), in 1990, he leaves two daughters and his fiancée, Diane Harrison. He was the longtime owner and operator of Indiana Screw Machine Products.

Edward T. George '47 (MS CM '49) (Phi Kappa Theta, Skull) of Hamden, Conn., died March 16, 2007. After a career in industry, he joined the computer science faculty at the University of New Haven and retired as department director and professor emeritus.

Edward F. Supple '47 (Phi Kappa Theta) of Nashua, N.H., died July 16, 2007. He received an MBA from Harvard Business School. A self-employed financial planner, he previously worked for Prudential Insurance. He and his late wife, Mary, had nine children.

Harold J. Devlin '48 (Phi Kappa Theta) of Conroe, Texas, died Feb. 13, 2007. An architect and engineer, his accomplishments include construction of the Houston Center project, renovation of the Creighton Theater, and expansion of the Texas prison system. He also served as director of project management for the Texas Children's Hospital. Survivors included his wife, Cynthia (Tuckey), and three children.

Carl P. Hershfield '48 (Alpha Epsilon Pi) of Canton, Mass., died March 11, 2007. He is survived by his wife, Betty, and a son. Hershfield was a retired consultant for Arthur D. Little Inc.

William L. Wagner '48 (MS EE) (Lambda Chi Alpha) of Ft. Myers, Fla., died July 30, 2007, leaving his wife, Barbara, and two children. He was a longtime manager at Northeast Utilities.

Rene H. Bachand '49 (Phi Kappa Theta) of Longmeadow, Mass., died July 18, 2007. He earned an MBA from American International College and retired as assistant superintendent of the Longmeadow Public Schools in 1991. He is survived by his wife, Mary (LaBella) and two children.

Thomas E. Donelan Jr. '49 died April 22, 2007, at his home in New Canaan, Conn. He leaves nine children and their mother, Joan Vincent Donelan. He was retired from Prudential Financial Services.

Eugene R. Rogers '49 of Waltham, Mass., died March 10, 2007. His wife, Shirley, survives him. He earned a master's degree in electrical engineering from Northeastern University and worked for Raytheon Co.

Wyman R. Thomas '49 (Lambda Chi Alpha) of Middlebury, Vt., died Aug. 9, 2007. His wife, Joyce (Goodro), died in 2005. He was a co-owner, along with his brothers-in-law, of Goodro Lumber Co., the family business founded by Joyce's father. His four children survive him.

John T. Cocker '50 (Skull) of Nantucket, Mass., died July 23, 2007, leaving his wife, Barbara (Cassidy), and two children. He was hired by Bell Telephone Laboratories right after graduation, where he continued until retirement, contributing to the design of the company's early computers and earning several patents.

Hammond Robertson Jr. '50 (Sigma Alpha Epsilon) of Cleverdale, N.Y., died Dec. 6, 2006. He is survived by his wife, Joan, and three children. He was retired from CIBA Specialty Chemicals and served on many town committees and boards.



Guido Biagini '51 of Bonita Springs, Fla., died April 24, 2007. He leaves his wife, Vivian, three sons, and a stepdaughter. Biagini received numerous patents for refrigerants used in the aeronautics industry. He also helped develop the backpack used on the first lunar landing. He retired from Hamilton Sundstrand Corp. in 1990.



William F. Sheehan Jr. '51 (Theta Chi) of Lenoxdale, Mass., died June 21, 2007. Predeceased by his wife, Maureen (Martin), he is survived by five children.

He worked for General Electric Co. for more than 25 years.

Pirro P. "Peter" Quamo '52 (Phi Gamma Delta) of Swampscott, Mass., died June 23, 2007. He leaves his wife, Constance (Linehan), and four children. He worked for General Electric Co. for many years and later retired from General Systems Co. as vice president of marketing.

Kenneth E. Haaland '53 (Sigma Alpha Epsilon, Skull) of Pittsfield, Mass., died Sept. 4, 2007. After 35 years of service in the Ordnance Division of General Electric Co., he retired in 1990. His wife, Norma (Crane), died in 2003. Two children survive him.

Clayton S. Brown '54 (Sigma Phi Epsilon) of Westwood, Mass., died April 14, 2007. He was retired from Nova Biomedical Corp. He is survived by his wife, Jacqueline, and his son, Scott Brown '82.

John H. Greenaway Jr. '54 of Nashua, N.H., died Oct. 24, 2007. Survivors include his wife, Ruth (Linscott), and two children. Greenaway was the retired chairman and president of SKF Steel USA, and Ovako Steel USA.



Souren Jaffarian Jr. '54 of Ashland, Mass., died May 9, 2007. Survivors include two brothers, nephews, and a niece. He was retired from Dennison Manufacturing Co.

Jan K. Marthins '54 of Tonsberg, Norway, died July 3, 2007. He leaves his wife, Vera, and four children. He was a senior scientist in the Underwater Defense Division of FFI (Forsvarets Forskningsinstitutt), the Norwegian Defense Research Establishment.

Bruce A. Sealy '55 (Sigma Phi Epsilon) of St. Louis, Mo., died April 19, 2007. He was the owner of UniGraFix Inc. Two children survive him.

George P. Strom '56 (Phi Kappa Theta, Skull) of Jupiter, Fla., died Oct. 11, 2007, leaving his wife, Carla. He is also survived by two children. A graduate of the MBA program at Syracuse University, he was the retired director of materials management for Remington Products.

Gerald R. Wootton '56 (Sigma Alpha Epsilon) of Thomaston, Conn., died Sept. 26, 2007. He leaves his wife, Emma (Cramer), and three children. Wootton retired from QCI as an electrical engineer and later worked as a funeral assistant. He also founded Dew Consulting and held several patents.

Seymour L. Friedman '57 (Alpha Epsilon Pi) of Saddle River, N.J., died June 30, 2007. He is survived by his wife, Naomi, and two children. He was the CEO of International Sourcing Inc.

Pascal A. Mancini '57 (Sigma Alpha Epsilon) of Sterling, Mass., died Aug. 24, 2007. A chemical engineer, he worked for Stauffer Chemical and later served as a research analyst for NERAC. He leaves his wife, Errol (Smith), and three children.

John M. Sarkisian '57 (Sigma Phi Epsilon) of Northborough, Mass., died May 24, 2007. He was retired from Wyman-Gordon, where he designed and received patents for aircraft parts. He leaves his wife, Judith (Moore), and two children.

Fred A. Rossi '58 (SIM) of Leominster, Mass., died Oct. 11, 2006. He was 91. He was retired from Bay State Abrasives.

William H. Bailey '59 (Sigma Alpha Epsilon) of Florence, Ky., died unexpectedly on Sept. 28, 2007. He leaves his wife, Beverly, and three children. Bailey was a regional sales manager for Harmonic Direct.

David G. Holloway '59 of Deerfield, N.H., died June 29, 2007. Survivors include his wife, Dawn (Richards), and four children. He was a retired mechanical engineer for Gemini Valve Co.



Transformations recently learned of the death of **David B. Sullivan '59** (Phi Gamma Delta) of Fairfax, Va., in 2004. He leaves his wife, Judith, and two children.

Sullivan worked for Northrop Grumman Aerospace and was retired as a principal from Booz Allen Hamilton Inc.

Francis G. Toce '60 of Cicero, N.Y., died July 9, 2007. He was the founder of Syracuse Scientific, dedicated to the design and manufacture of equipment for the medical x-ray industry. He leaves two sisters, nephews, and nieces.

Alfred L. Dunklee '61 of Torrance and La Canada, Calif., died April 26, 2007. A longtime aerospace engineer, he retired prematurely from TRW (now Northrop Grumman) due to ill health. He previously was a systems analyst for Martin Marietta (now Lockheed Martin) and a member of the JPL Mars Viking Project team. His wife, Joanna, survives him. He was the nephew of Robert E. Dunklee Jr. '40 and the brother of David E. Dunklee Jr. '63, both deceased.

George W. Durnin Jr. '61 (SIM) of Middleboro, Mass., died May 18, 2007, at age 76. He was the retired vice president of UMass Memorial Marlborough Hospital. He leaves his wife, Joyce (Targett-Olson), five children, and two stepchildren.

Richard J. Moore '61 (Phi Sigma Kappa) of Haverhill, Mass., died Feb. 14, 2007. He was retired from the Federal Highway Administration as an area engineer.

Kenneth A. Backer '63 (Theta Chi, Skull) of Brentwood, Calif., died April 26, 2007. He was vice president of marketing for Idea Courier. He leaves his wife, Gail, and two children.

Franco A. Baseggio '63 (Sigma Alpha Epsilon) of Mattapoisett, Mass., died April 17, 2007. He leaves his wife, Jacqueline (Dansereau), and three children. Baseggio spent 32 years with Gillette Co. and retired as director of product evaluation. He later held executive posts at Schick and Koehler Associates.

Kenneth C. Benton '63 died Oct. 8, 2007. A resident of Jesup, Ga., since 2001, he was recently retired from Rayonier Fibers as

principal scientist. He received a PhD in polymer chemistry from the University of Akron. Survivors include his sister, Catherine Anton, and her husband, as well as a nephew.

David F. Beaber '64 (Phi Sigma Kappa) of Freedom, N.H., died May 31, 2007. His two children survive him. He earned an MBA at the Wharton School of Business and was president of Information Systems Management.

Robert P. Alekshun '66 of Auburn, Mass., died Aug. 26, 2007. He leaves his wife, Virginia (Luikey), and two children. He was predeceased by a son. Alekshun was the owner and operator of Superior Engraving and Stamp Works.

John H. Clinton '68 (Theta Chi) of Wakefield, Mass., died May 26, 2007. He worked as a self-employed consulting engineer in California for many years. He is survived by several cousins.

John B. Jacobs '68 (SIM) of Paxton, Mass., died April 22, 2007, at the age of 92. Predeceased by his wife, Katherine, he leaves two sons. Jacobs was retired as superintendent of New England Electric Systems of Worcester.

Raymond R. Stevens Jr. '69 (SIM) of Charlton, Mass., died May 26, 2007, at the age of 80. He was retired from American Optical Co. He is survived by his wife, Patricia, and three children.

Walter M. Jensen Jr. '71 (MS) (Lambda Chi Alpha) of South Dennis, Mass., died June 26, 2007, at the age of 74. He was a longtime mathematics professor at Worcester Junior College and Central New England College. After retiring from academia, he opened Olde Towne Antiques. He leaves his wife, Lynne, and a daughter.

Transformations has learned of the death of **Steven P. Rudman '72** of Garland, Texas, in 2001. He was the brother of Peter Rudman '77.



Former football and basketball team captain **James R. Buell '73** died unexpectedly on Sept. 12, 2007, at his home in Worcester. He was retired from Wyman-Gordon, where he worked as a civil engineer for 25 years. Two children survive him. A football tri-captain and wide receiver, Buell was a member of the WPI Athletic Hall of Fame and the Worcester Galaxy of Stars.

Transformations has learned of the death of **Robert Digennaro '73** (Lambda Chi Alpha) of Manassas, Va., in 2001. He is survived by his wife, Jane, and two children.

Ruey-Sen Lin '73 of Fremont, Calif., died July 4, 2006. He was principal engineer for Gadzoox Networks and previously worked for Digital Equipment Corp.

Louis E. Vigliatura Jr. '73 (SIM) of North Grafton, Mass., died April 18, 2007. He was 80. He leaves his wife, Mary (Generalli), and four children. He retired from Bay State Abrasives after 36 years and later served as a consultant for Organic Product Development of New Jersey.

Francis L. McCaffrey '74 (SIM) of North Oxford, Mass., died Oct. 29, 2006, at age 77. He was retired as supervisor of manufacturing standards for Norton Co. He leaves his wife, Geraldine (Murphy), and three children.

Harold L. Sundell Jr. '74 (SIM) of Worcester died March 31, 2007. He was 86. Sundell was retired from Worcester Gas Co. as a district manager. His wife, Geraldine, survives him.

Michael O'Hara '78 (Sigma Phi Epsilon) of Burnsville, Minn., died Dec. 1, 2007, after a five-year battle with multiple myeloma. He leaves his wife, Connie, and two children. He founded the MountainStar Group fire protection engineering firm and chaired several Minnesota state licensing and code advisory groups, including the Governor's Council on Fire Prevention and Control.

Jeffery G. Stickles '79 of Hampstead, N.H., died May 17, 2007. He earned an MBA at Southern New Hampshire University and served as senior director of manufacturing for Mercury Computer Systems. He leaves his wife, Jane (Martinelli), and a daughter.

Samuel Vangel '79 (SIM) of Southbridge, Mass., died May 8, 2007. He was 80. His wife, Catherine (Chaousis), and two children survive him. He was retired as general foreman for Russell Harrington Cutlery Co.



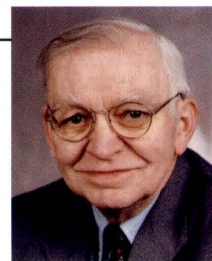
James W. Boland '81 of Johnson City, Tenn., died Dec. 16, 2006. After teaching mathematics in the U.S. Navy's Nuclear Power School, he went on to earn a master's degree

from the University of Central Florida and a PhD from Clemson University. In 1992 he joined the faculty of Eastern Tennessee State University, where he served as graduate coordinator of the Department of Mathematics and director of the University Honors Programs. At WPI, Boland was known for establishing the Ultimate Frisbee league and introducing "Folf" (Frisbee golf) to the campus. He leaves his wife, Taby Garman, and two stepchildren. *Photo courtesy of ETSU.*

Kevin R. Fontaine '84 of Woodbury, Minn., died June 22, 2007, after a battle with esophageal cancer. He leaves his wife, Mary (Martenson), and two children. He was a software engineer for Bremer Financial Services.

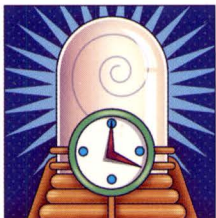
Chauncey L. "Bill" Christian Jr. '89 (MBA) of Oak Bluffs, Mass., died Dec. 25, 2006, at age 77. He was retired from Polaroid, where he worked in the electronics and development engineering group orchestrating offshore operations in Asia, Europe, and Mexico. He leaves his wife, Anita, and two daughters.

Lino J. Brosco '98 (Alpha Chi Rho) of Methuen, Mass., died unexpectedly on July 5, 2007. He worked as an engineer in Boston and New York. Survivors include his parents and two sisters.

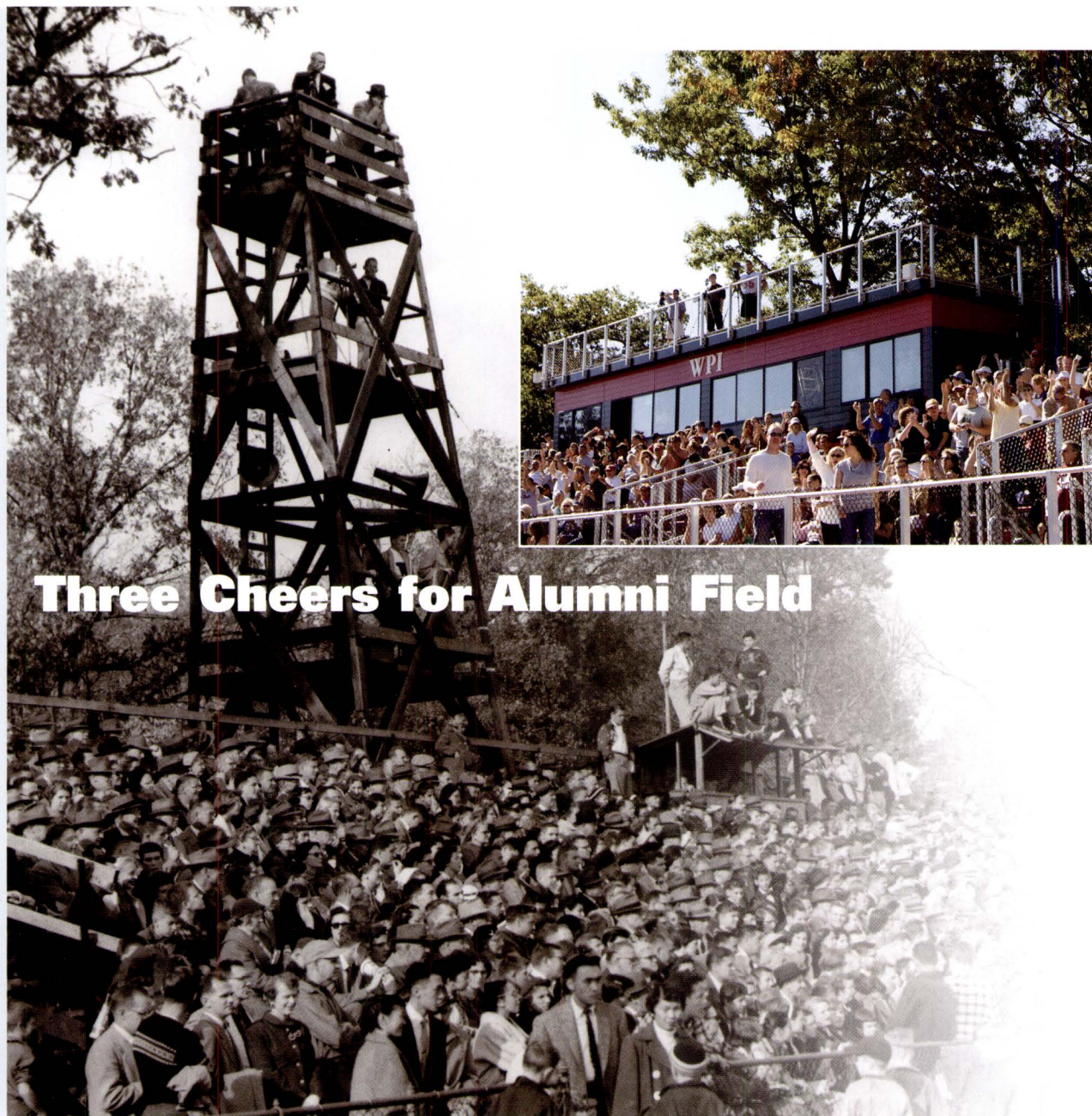


Ladislav H. "Laddie" Berka, professor emeritus of chemistry and biochemistry, died Feb. 7, 2008. A graduate of Union College, he received a master's degree in chemistry from the University of California Berkeley and a PhD from the University of Connecticut. An active researcher, he developed a particular interest in forensic science; he edited the forensic science column for the *New England Association of Chemistry Teachers Journal*, organized the Forensic Science Colloquia at WPI for many years, and collaborated on patents for new fingerprinting processes. Survivors include his wife, Barbara (Schemmel), and two daughters, Janis Kallgren and Karen Bruewer.

A complete obituary may be read at www.wpi.edu/News/Memoriam.



Time Capsule



Three Cheers for Alumni Field

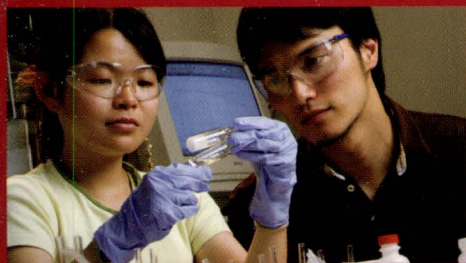
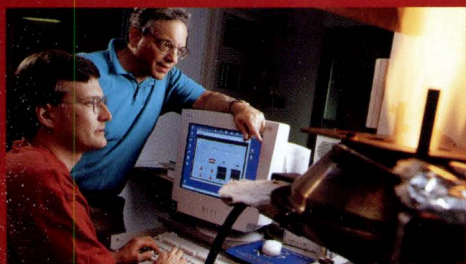
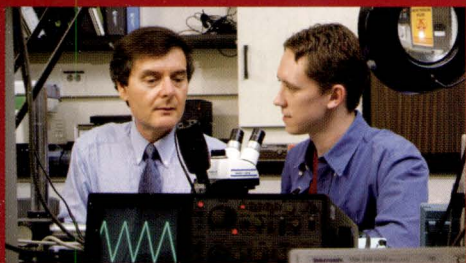
In time for A-term, WPI completed the renovation of the Alumni Field complex, including the installation of new turf (the same used at Gillette Stadium, home of the New England Patriots), new bleachers and press box on the west side of the field, a scoreboard, and a field lighting system. The existing eight-lane track was resurfaced, and, during Homecoming Weekend in September, was named for legendary WPI coach Merl Norcross, who was head track and field coach for 42 seasons and served the Athletic Department for 53 years.

This renovation project was made possible by the generosity of several WPI alumni and their spouses—Janet and George Abdow '53, Mary Anne and James Carr '74, Barbara and Peter Horstmann '55, Nancy and Barrie Peterson '67, Ruth and Don Taylor '49, and Sandra and David Van Covern '53.

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Graduate Studies at Worcester Polytechnic Institute



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"You can't just throw technology at people. You need to understand their knowledge, their culture, and what is most appropriate for their needs."

—Carolyn Hunter '08

Last year, Carolyn traveled with her project team to rural villages in Thailand. There, they developed a strategy to efficiently use government-issued solar home systems, which were often unused or left in disrepair. By experiencing the Thai culture and engaging the local people, the team learned that the villagers loved the technology; they just hadn't been trained on how to repair it.

This project is just one example of the amazing work that WPI students are conducting around the world. Such opportunities are made possible by the generous support of alumni and friends.

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